DOCUMENT RESUME

ED 233 496 EA 016 063

TITLE Cost Consciousness: A Necessity of the 80's. A Compendium of LEAs Cost Saving Practices in Pennsylvania.
INSTITUTION Pennsylvania State Dept. of Education, Harrisburg.
PUB DATE 83
NOTE 81p.; Compiled by the Pennsylvania Management Assistance Resource Team (PaMART) under the direction of Mario D. Pirritano, Coordinator; developed by Donald C. Thompson.
PUB TYPE Guides - Non-Classroom Use (055) -- Reports - Descriptive (141)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Cost Effectiveness; Educational Facilities; Educational Resources; Elementary Secondary Education; Energy Conservation; Financial Policy; Instructional Materials; *Money Management; Personnel Policy; *Retrenchment; *School Administration; School Funds; *Staff Utilization; Teaching Methods
IDENTIFIERS Pennsylvania

ABSTRACT

Collected in this guide are 84 cost saving measures submitted by Pennsylvania school districts. Information on each practice includes a description, background, effectiveness, cost requirements, adaptability, and contact for further details. Facilities practices include energy management and conservation measures. Materials/equipment practices include centralized book storage, purchasing, office services, computer applications such as keeping student and staff attendance and conducting a district census, direct billing for cafeteria meals, standarization of equipment, a decentralized phone system, and transportation economy tips. Personnel practices listed are the use of lay editors for grading papers, split teaching assignment, sharing principals and administrators, time clocks, staggered hours, district reorganization with school closings, teacher commendation, nonunion support staff, custodial education and staffing standards, lab fee collection, a centralized substitute teacher system, staff utilization studies, staff realignment, and multiple certification hiring. Finance/business practices offer savings through budgeting policies and insurance programs, tax collection and revenue investment, and cash flow programs. Curriculum/instruction cost saving practices are contracting driver training, district consortia for program development, a team approach to behavior problems, compensatory time for curriculum development, special education reorganization, and full-day kindergarten programs. (MJL)

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ED233496

Cost Consciousness

A Necessity of the 80's

A Compendium of LEAs Cost Saving Practices in Pennsylvania

EA 016 063

Pennsylvania Department of Education

Cost Consciousness

A Necessity of the 80's

Commonwealth of Pennsylvania
Dick Thornburgh, Governor

Department of Education
Robert C. Wilburn, Secretary

Pennsylvania Department of Education
333 Market Street, P.O. Box 911
Harrisburg, PA 17108

1983

FOREWORD

In this period of declining enrollments and shrinking money resources it is particularly important that school districts and intermediate units have access to a clearinghouse that they can use to obtain ideas on good management practices. The Pennsylvania Management Assistance Resource Team (PaMART) felt obligated to provide that needed clearinghouse service. The Team, through its frequent associations with educators ascertained that there was a wealth of good management practices operating in our public schools and began compiling a resource file. It was determined that the educational community at large might benefit from a compendium of such exemplary management practices. With this idea in mind, school administrators from every school district in the Commonwealth were asked to submit cost effective management practices and policies for eventual dissemination throughout the state.

Overall 372 practices were submitted by 124 districts and intermediate units. PaMART wishes to take this opportunity to thank those districts which contributed those practices and to express our special appreciation to the individuals who took the time to prepare them in a common format for submission. Without their help this project could not have been undertaken and completed.

The publication which follows is the result of that effort and contains a sample of eighty-four (84) cost-saving measures that have proven successful in their respective school districts and intermediate units. In most cases these practices can readily be duplicated and require only a minimal capital outlay. It was impossible to include all 372 suggestions submitted, so it was decided that we would publish those which were most easily adaptable by other districts and which seemed to be most cost effective.

In addition to this booklet, PaMART has decided to initiate a process to record and update all successful practices on PENN*LINK, the computerized information network currently being tested in some schools. Those schools who join the network will have access to all 372 practices and will be able to immediately retrive this information file when needed.

It should be noted that PaMART did not attempt to validate or verify any of the practices which were submitted. Publication of a practice in no way carries with it the endorsement or the support of the Department. Our role in compiling and publishing these practices was one of service to the field. Readers having questions about the practices are therefore urged to contact directly the school district using a particular practice before implementing that idea in their own school setting.

Cost Consciousness

A Necessity of the 80's

Compiled by the
Pennsylvania Management Resource Team
PaMART

Under the direction of : Mario D. Pirritano, Coordinator
Developed by : Donald C. Thomson

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FACILITIES PRACTICES

Title: ENERGY SAVING INCENTIVE

Practice Description: Essentially, the eight schools in our district entered into the competition for the highest percentage savings in both gas and electricity for one year. The prize was $500 for the winning school in each utility.

1. Tables of the previous year's monthly utility bills for each school were constructed and monthly bills for the successive year recorded and compared. Progress reports were made to the schools on a bi-monthly basis.

2. We made no distinction among our varied buildings for the contest. Everyone understood that the older, less energy-efficient buildings are more conducive to savings. Efforts in all schools have still resulted in savings and exemplify for students and staff the necessity for conservation. Schools entered into the competition in that spirit.

3. Principals of the individual schools headed up the programs, monitoring passive solar measures, reducing over-lighting, promoting room-by-room awareness. They agree that vigilance, more than any small capital conservation measures we were able to implement, was the key to their success. One observation was that watching that temperatures remain as constant as possible--not demanding a 3-4 degree raising of temperature at any time--was a most valuable consideration in heat conservation. Calibrating the night thermostats for a shorter heating day and block-cleaning--illuminating one or two rooms at a time at night--have been helpful. Our maintenance and custodial people, consulted constantly, helped enormously with both practice and suggestions.

4. In the months immediately following the contest, despite some energy measures installed as part of the program, energy use figures crept up, assuring us that careful vigilance was the important variable in the program. As a result, we are continuing to monitor the bills and alerting schools whose use is creeping up.

Background: The enormous cost of utilities for our buildings, together with the critical need for conservation, created the need. District gas bills were running $180,000 per year, electricity $135,000 with no prospect except to increase.

Effectiveness: The winning buildings saved respectively 20.2% in electricity and 17.7% in gas (one despite an increased heating and lighting area). We calculate that our real savings districtwide of some 525 MCF of gas (cost in 1982 - $4.0564 per MCF) and 133,509 KWH of electricity (.06442 per KWH) amounted to nearly $11,000 in the time of the contest bounds. In the eight months since the end of the contest, however, the reduced amount of energy compared to last year's amounts to an additional $20,000 savings over what last year's amount of energy would have cost. The weather has indeed been milder, but we feel last year's conservation habits and awareness have made considerable difference.

A substantial benefit is the one to the students in creating a positive conservation environment. We also feel our individual school employees benefitted from the team spirit involved in researching and implementing conservation measures. Further, the schools used the prize money for educationally beneficial purposes.

Cost Requirements: $1,000 prize money plus $40 for two plaques. Some energy conservation measures were funded from the individual schools' 643 accounts, but that was not a requirement of the contest.

The savings in the December electric bill alone amounted to more than the cost of the program.

Adaptability: Easily adaptable. Some time was needed in the initial "tabling" of figures, but 1-1½ hours per month for one person kept the "standings" current.

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Curriculum Coordinator and Director
of Federal Programs
Northern Tioga School District
117 Coates Avenue
Elkland, PA 16920
(814) 258-7118

Superintendent: Dr. Kenneth D. Schoonover

Title: MINIMIZING WEEKEND SCHOOL ACTIVITY

Practice Description: Although it is not possible to schedule all events on school days, every attempt is made to schedule dances, concerts, drama productions, and athletic events on school days to save on energy costs (heat, lights, etc.) and custodial overtime (the night shift handles the event on school days).

Background: The high costs of energy and the increased cost of custodial overtime.

Effectiveness: A significant savings in custodial overtime costs and a slight savings in energy costs.

Cost Requirements: None

Adaptability: Very readily - intelligent scheduling and flexible advisors and coaches are essential.

Contact: Mr. John Squarcia
Principal (Senior High)
Pen Argyl Area School District
1620 Teels Road
Pen Argyl, PA 18072
215-863-9093 Ext. 220

Superintendent: Russell H. Roper

Title: HEAT TRANSPORT SYSTEM

Practice Description: Two buildings located approximately 2,000 feet apart have been linked together by an underground Heat Transport System. A gas/oil fired boiler has been eliminated in one building in favor of heating both buildings by coal fired boilers located in the second facility. The transport system consists of two six-inch mains with two-inch urethane insulation in a PVC jacket. A heat converter utilizing steam from the coal fired system heats water which is transported to the other building.

Background: 1) Coal fired boilers were 22 years old and in need of repairs and/or possible replacement; 2) Cost of heating the building with the gas/oil fired boilers was $38,874 in 1981-82 compared to $9,475.00 to heat the other comparably sized building for the same period; 3) Coal is a "cheaper" fuel and readily available.

Effectiveness: 1) Anticipated total heating cost for our two buildings is expected to be reduced in 1982-83 from $38,349 to approximately $15,000; 2) Additional savings include a) reduced maintenance cost because only one boiler system is functioning instead of two and b) possible reduction in manpower; 3) Projected 20 years savings is $1.3 million.

Cost Requirements: 1)

Installation of Heat Transport System	$312,000
Renovation of Boilers	43,200
Total Project Costs	$355,000

2) Estimated "payback" period is eight years on the total project; seven years on the transport system.

Adaptability: This system could be applied in a situation where: 1) Buildings are in close proximity; 2) Boiler system in one building is large enough to handle the increased load; 3) Coal is readily available.

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Superintendent
Keystone School District
Box 370
Knox, PA 16232
(814) 797-5921

Title: PREVENTIVE MAINTENANCE PROGRAM

Practice Description: A five year preventive maintenance program was developed and approved by the Board. Maintenance projects were identified by the teachers, maintenance personnel and administration. The Superintendent and the Supervisor of Buildings & Grounds prioritized the projects. Two mills of real estate tax were budgeted each year to finance the program.

Background: The district's desire to provide well maintained facilities was the main thrust behind this program.

Effectiveness: Our facilities are well maintained and are cost effective. We have had no large financial outlay creating a budget problem. We have reduced our fuel consumption by 40% since 1976.

Cost Requirements: Each project is bid. Most "Payback" periods are 2-4 years.

Adaptability: Any school district can easily develop a similar program.

Contact: Dr. James L. Dell
Superintendent
Palmyra Area School District
Park Drive
Palmyra, PA 17078
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Title: SPACE UTILIZATION

Practice Description: This practice offers a way to turn excess building space into an asset, benefiting both the school district and the community.

1. A community advisory council in cooperation with a committee of professional staff members proposed the development of plans to convert a school building into a community center.

2. Lessees whose primary purpose was to provide human and physical resources for members of the community were sought.

3. Space in the center is leased on both a yearly and multi-year basis.

4. Space in the center is used for many purposes, including: a day care center, an adolescent alternative school, a community chorus, March of Dimes offices, a recreational program, a senior citizens center, a children's theatre, a Marianists Center, nonpublic Learning Disabilities Program and meeting rooms.

Background: As a result of declining enrollments, the Board of School Directors approved the closing of a junior high school. Although projections through 1990-91 did not reveal encouraging signs, it was a consensus opinion that the building should not be sold. Rather than maintain an empty building at substantial cost to the district, it was decided to creatively utilize the facility by attracting tenants who would sustain costs and allow for the provision of educational/cultural/recreational programs. The fact that the community had no such center made the prospect even more attractive.

Effectiveness: The Community Center has effectively reduced the cost of operating two half-empty junior highs. The center now provides much needed educational/cultural/recreational resources. Parents and students who would have attended the junior high school feel less betrayed by the closing. The center has brought various sectors of the community center together. There are possible job opportunities particularly for furloughed staff.

Cost Requirements: Minor renovation, custodial and energy costs will be covered by tenant fees. In addition a HUD grant of $164,000 is helping to support the recreational program for the next ten years. Sale of excess furniture and equipment is in excess of $30,000. A profit estimated at between $30,000-$40,000 will help to develop additional programs.

Adaptability: The potential for leasing building space would probably exist in most communities since cost per square foot can be competitive with commercial enterprises. Most communities prefer to maintain school buildings rather than sell them.

Contact: Dr. Herbert Pless
Superintendent
Ridley School District
1001 Morton Avenue
Folsom, PA 19033
215-534-1900

Title: CEILING PADDLE FANS

Practice Description: The installation of ceiling paddle fans in our high school gym pushes rising warm air back towards the floor. They also recirculate the air and allow greater comfort for spectators at events in the gym.

The four 52" wide paddle fans are mounted from the roof support beams and are additionally secured by a steel cable. The fans are spaced evenly so as to create air movement over the entire gym area. A variable speed control is used.

Background: We measured the temperatures at the ceiling and floor levels and found there was about a 16 degree difference. The hottest air is trapped in the ceiling area and is being wasted.

Effectiveness: We now have less of a temperature variation between the floor and ceiling--about one degree. This obviously saves on heating costs.

We also have better air circulation. The variable speed control makes the system work to the maximum, because it allows for complete control when heating requirements change, audience sizes vary, etc.

Cost Requirements: We purchased:

Four 52" paddle fans
One variable speed control
Necessary conduit, wire and miscellaneous installation items
Staff time for installing

Adaptability: This is very simple to do in any school gym or other room with high ceilings if there is a solid place to mount the fans. Installation can usually be done with in-house maintenance personnel.

Contact: Gary L. Seymour
Secretary/Business Manager
Canton Area School District
139 E. Main Street
Canton, PA 17724
717-673-3191

Superintendent: Dr. Jack D. Lawrie

Title: ENERGY USAGE STUDY

Practice Description: The National Energy Conservation Policy Act (Public Law 95-619) established cost sharing energy conservation grant programs to fund "technical assistance" studies for public and private nonprofit schools. With the approval of the Board of Education, members of the administrative staff, following the procedures set forth in P.L. 95-619, completed the required application and funding request forms. The U.S. Department of Energy subsequently approved a grant of $21,491.00 to carry out technical assistance studies of the school district's three secondary schools. A team composed of professional engineers and architects will study each building thoroughly and submit recommendations regarding appropriate energy conservation measures that could be implemented.

Background: The school district's senior high school and two junior high schools were constructed or renovated in 1965, 1962, and 1935, respectively. As these dates suggest, the schools were built or refurbished during periods when natural gas, heating oil, and electricity were relatively inexpensive. These structures have large windows, inadequate insulation, and several other characteristics which are not conducive to the efficient use of energy.

Effectiveness: It is anticipated that the final reports of the technical assistance studies will contain the specific types of information needed to significantly reduce energy consumption in the district's three secondary schools. This information will not be available until late January, 1983.

Cost Requirements: The federal government will provide a maximum of $21,491.00 to the school district. The school district's share of the costs involved in carrying out the technical assistance studies will be equal to the amount available from the federal government.

Adaptability: Before undertaking the project described above, members of the district's administrative staff contacted personnel in several other school districts where technical assistance studies had already been completed. The reports or comments received indicated that the data gathered from studies of this nature have proved very useful in efforts to reduce energy costs.

Contact: Dr. Jerry N. Long
Assistant Superintendent
Bradford Area School District
50 Congress Street
Bradford, PA 16701
814-362-3841 (Ext. 28)

Superintendent: Frederick E. Shuey

Title: COMPUTERIZED ENERGY MANAGEMENT SYSTEM

Practice Description: The Montgomery County Intermediate Unit is cooperating with the Springfield (Montgomery County) School District from whom it leases its central administration offices, to purchase a computerized energy management system. The system will monitor and regulate via a central computer the electricity and fuel use in each of the district buildings (4), as well as the IU office. The computer regulates the daylight, evening, and weekend utility usage to insure comfortable working conditions in all parts of the building while controlling for unnecessary use. It also checks for necessary maintenance in case of machine breakdown.

Background: The cost of utilities has increased significantly over the past few years (31% since the 1980-81 year). One measure available to the IU to control these costs was to reduce utility usage. However, this reduction in usage could make working conditions uncomfortable. In our opinion, all the factors that had to be controlled were too complicated and too varied for our regular maintenance. Thus, we requested bids for the development of a computerized energy management system.

Effectiveness: The effectiveness of a computerized energy management system is related to the age and size as well as the condition of the district's buildings. In our case, the building is relatively new (17 years) and has been well maintained (as have the other buildings in the school district). In our analysis, the system should prove effective in reducing unnecessary electricity and gas use which should result in a reduction in utility costs. We will be better able to analyze the system's effectiveness after the first complete year of operation.

Cost Requirements: The Montgomery County Intermediate Unit is cooperating with the Springfield School District in the purchasing and installing of the energy management system. For our building these costs are $28,000.00 with an annual maintenance fee of $1800.00. The payback period (calculating a utility cost increase of 12% a year) is 2.1 years.

Adaptability: A school district must thoroughly study its utility usage and annual cost increases. The district must prepare a very specific request for proposals (usually with the assistance of an architect). Finally, the district must be willing to purchase a system with a payback which may be two or three years down the line.

Contact: Dr. Salvatore J. Illuzzi
Assistant Executive Director
Montgomery County Intermediate Unit
Montgomery Avenue and Paper Mill Road
Erdenheim, PA 19118
215-233-6915

Executive Director: Dr. Dennis Harken

Title: ENERGY MANAGEMENT SYSTEM

Practice Description: The system is an almost totally automatic, microprocessor style, load shedding type unit. This system helps to control energy consumption by controlling the amount of energy demand at any given time. The energy manager package is programmed to allow only those units of equipment within a predetermined kilowatt load to operate during any one time. The same units are not allowed to run continuously as in the past. Allowances are also programmed into the energy package to compensate for increased heat requirements by changing operating cycles at given set points as outside temperature decreases. District personnel, if properly trained can operate/program the system if desired by the district.

Background: Institution of this practice was necessitated by the ever increasing cost of energy consumption. Although we had adjusted operating times of the heating and cooling units manually and through the use of timers, it was just not enough control. We needed a system to give us more total and efficient control of the electrical energy being used. The answer seemed to be in the use of "load shedding" type devices, to control electrical consumption 24 hours a day, seven days a week.

Effectiveness: Although there were some minor inconveniences in cooler temperatures and adjustment of discomfort, this was offset by savings realized. Original installation was a system of timers and cams which accounted for some savings and much erratic operation. We are presently enjoying an approximate 25% savings in our utility bills since installing a name brand microprocessor type energy manager. Actual savings are not all seen directly in utility billing due to rate and fuel surcharge increases, but we are staying ahead of these increases and can continue to do so by updating our energy management system.

Cost Requirements: Cost of installation of our two systems totalled $32,000.00, or approximately 12-15% of the annual utility bill for our two newest buildings. A one year payback is reasonable and is to be expected. Each additional year of savings helps the district to keep its head above water and provide for equipment updating.

Adaptability: This practice is most readily available from any number of HVAC control companies or electrical contractors. Wiring does not necessarily have to be extensive depending on type of building in which used. Best application would probably be in buildings which are heated electrically.

Contact: Mr. Benjamin Bryla
Director Operations/Maintenance
Valley View School District
Columbus Drive
Archbald, PA 18403
717-876-4110 (Ext. 30)

Superintendent: James J. Davis

Title: ENERGY MANAGEMENT

Practice Description: Our Jr.-Sr. High School building was built in 1953 and is a typical two story, brick building with many Nesbitt unit ventilators. We contracted with Honeywell Corp. to modify the operation of 34 unit ventilators to permit manual override of the outside air damper control circuit to limit its opening from no opening during very cold weather up to a pre-set position in milder temperatures. This reduces the overall amount of fresh air being heated during the year.

The variable pressure control is installed in the pneumatic lines of the unit ventilator and is controlled by our maintenance staff.

Background: Current standards for fresh air are not high as they were when this school was built. It was recognized we were heating more fresh air than was necessary. These dampers also do not seal tight when shut either, so there is constant fresh air leakage. A study was conducted by Honeywell Corp. and an estimated payback of three years convinced us to go ahead with the work.

Effectiveness: We can control how much fresh air enters the building to be heated at the minimum required for occupants to be comfortable. We save money by not heating uneeded fresh air. Opening of dampers can be adjusted to the needs of each room.

Cost Requirements: Contract with Honeywell to modify the 34 unit-ventilators was $1910. Virtually no work was required by district staff. It is difficult to determine exact savings but payback of three years was calculated by Honeywell.

Adaptability: This energy saving measure most likely can be installed on any pneumatically controlled damper.

Contact: Gary L. Seymour
Secretary/Business Manager
Canton Area School District
139 E. Main Street
Canton, PA 17724
717-673-3191

Superintendent: Dr. Jack D. Laurie

Title: ENERGY MANAGEMENT SYSTEM

Practice Description: Our elementary school (K-6) is a single story, all brick, all electric building constructed in 1971. The floor area is about 60,000 square feet. In August of 1981 we installed a Honeywell W7010G Energy Management System (EMS). This EMS determines when the heat should come on in the morning by sensing outside temperature. It also duty cycles various heating and cooling units as well as the hot water heater. The entire school calendar can be programmed at one time. Even though we are not on demand meter billing procedure for this building, we have installed a pulse meter so we can develop a history of demand. This will enable us to save even more if we are placed on demand metering in the future by the utility company.

Background: Electric bills for this building have more than doubled between 1973-74 and 1980-81. A study was conducted by Honeywell who estimated we could save enough to create a 1.4 year payback of the total costs involved without decreasing comfort to occupants.

Effectiveness: We experienced a 21% reduction of kilowatt hours over the preceding 12 months based on degree day calculations. Comfort levels are virtually unchanged.

Cost Requirements: Payback was 10 months costs:

Equipment	$10,648
Contracted Labor	$ 1,814
Maintenance Agreement	$ 1,608 annual

Very little help was needed by our maintenance staff.

Adaptability: This system should be very easy to install in any all electric building. Existing pneumatic lines can be utilized to control motors, etc. If no pneumatic lines in the building, low voltage wiring can be used. The system is simple to operate after staff receives a little training.

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Superintendent: Dr. Jack D. Laurie

Title: PASSIVE SOLAR SYSTEM

Practice Description: Installed translucent insulated panel over open courtyard. Collected solar heat and gave warmth to previous cold outside walls. Also provided an area for students to gather in informal atmosphere.

Background: Desire for an informal atmosphere for students to gather for discussion groups, separate from the regular classrooms, or the restrictions that exist in a library area.

Effectiveness: While a cost savings was not the key factor in this instance, there was a real savings which can only be estimated at this time.

Cost Requirements: Installed a plastic dome over an open courtyard. Cost was $42,000. Estimated figures for construction of sealed enclosure with heat and electric was $65,000. Savings estimated without considering the heat savings were $23,000. Open courtyard has ample natural light through the solar dome. Heat generated from solar power negates the need for any heating in the area. Initial payback is .65 years.

Adaptability: Building must have an open courtyard surrounded by four walls of the school building. Additional heat loss saving in having the previously exposed walls to the cold elements, not heated by solar power.

Contact: Robert F. Northrup
Director of Finances
Souderton Area School District
139 Harleysville Pike
Souderton, PA 18964
(215) 723-6061

Superintendent: Dr. William E. Maxwell

Title: DUAL HEATING SYSTEM

Practice Description: Where a district has buildings heated with natural gas or fuel oil exclusively, it might be advantageous to replace them with burners that are combination burners using both oil and gas alternately. The fuel used is determined by the outside temperature.

Natural gas is used by the burners until the outside temperature reaches 14°. Then the burners automatically switch to #2 oil and then back to natural gas when the temperature reaches 22°.

Background: We were burning #6 fuel oil which caused excessive maintenance charges as a result of burning dirty; burner adjustments were also difficult.

The change was decided on to reduce fuel and maintenance costs.

Effectiveness: The district has had a 30% increase in efficiency and a savings of approximately $85,000 during the first year in fuel and maintenance costs.

Cost Requirements: The total cost which included engineering services, equipment purchase and labor was $80,635. The payback period is approximately one year.

Adaptability: This concept can be used in most buildings being heated with boilers using either fuel oil, natural gas, wood or coal.

Contact: Douglas Houston
Business Manager
Wilson School District
Grandview Boulevard
West Lawn, PA 19609
215-678-8065 (Ext. 200)

Superintendent: Dr. Stanley T. Dubelle, Jr.

Title: CHARTING UTILITY USAGE

Practice Description: Provide a check of utility usage for comparison over a period of years for each facility.

1. For each utility a separate chart for each facility that will provide usage and cost each month of the year set up in a way that it may be compared over an extended period of time--water in gallons and cost electricity in kwh and cost, etc.

2. This was developed to show the effectiveness of conservation practices. You can compare MCF of gas and the same month over a period of time and also compare year by year consumption. By comparing water usage increasing for no apparent reason, at a certain month, have suspected water leaks and found them. We have discovered water cooled pumps not working correctly, we can show that although costs have been rising, our consumption has been reduced.

Background: Developed to provide budget information, then used for proving conservation methods and finally discovered that it is a good method of trouble-shooting.

Effectiveness: Saving can be substantial if utilized to put into effect conservation and successfully discover problems early.

Cost Requirements: Time to record and review.

Adaptability: Could be used by any District.

Contact: Albert H. Detar, Jr.
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Connellsville Area School District
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Superintendent: Clifford N. Pritts

Title: ENERGY MANAGEMENT

Practice Description: Since our thermostats (updated) have been set at 65°, we have requested parents to send a warm sweater with each child for the a.m. sessions. By afternoon the accumulated body heat and/or sunshine has warmed most rooms to 70°.

Background: Our heating system was inconsistent varying as much as 30° among rooms, costing the district, tremendously, in terms of both money and morale.

Effectiveness: Not only do we anticipate a nice savings, financially, but we have already eliminated 90% of the usual complaints we have had in past years concerning inconsistent heating. Further, we are finding nearly all of our students are coming to school properly dressed for winter conditions, a practice sadly missing in many cases in the past.

Cost Requirements: The district spent nearly $8,000 to do the updating but I believe we will regain the money in one or two years and profit, thereafter.

Adaptability: Any district should be able to do this.

Contact: Gary A. Singel
Acting Superintendent
Shanksville-Stonycreek School District
Shanksville, PA 15560
814-267-4649 (Ext 6)

Title: TIME CLOCKS ON WATER HEATERS

Practice Description: On the last student day in June, all hot water units are turned off. These units are not turned on again (with the exception of the high school showers area) until August 18th just prior to the commencement of school in September.

Background: I observed this practice in another school district. Our district had an enormous cost of electrically heated hot water throughout the school district despite that it was used sparingly for cleaning purposes by our summer custodial personnel. We also observed that with modern detergents and cleaning materials hot water is unnecessary.

Effectiveness: The benefits realized from instituting this practice is a considerable savings in energy consumption and electrical cost since we turn off all hot water units throughout the district during the summer months.

Cost Requirements: The time and effort required to direct the proper personnel to turn off these hot water units - the savings to our district is between $1200 and $1500 per season.

Adaptability: Any school district that does not operate a summer school can put this practice into operation.

Contact: William Heist
Supervisor of Buildings and Grounds
Daniel Boone Area School District
Box 307
Birdsboro, PA 19508
215-582-2261 (Ext. 117)

Superintendent: Dr. Joseph M. Mainello

Title: ENERGY MANAGEMENT

Practice Description: This program replaced 122 light fixtures in two gymnasiums with 38 metal halide fixtures with no decrease in candlepower. Actually, once the metal halide lights were installed we found that we could turn off one-third of the fixtures and still have adequate light for physical education activities.

Background: The decision to convert to metal halide fixtures was generated by recommendations contained in a recent energy audit commissioned by the School Board.

Effectiveness: Initially, we computed the saving in electricity cost to be about $4900 per year, with an additional saving for bulb replacement approximating $200 per year. Now, recognizing that only 2/3 of the fixtures must be used for physical education class, the savings will be even greater.

Cost Requirements: The first estimate for conversion to the metal halide lights was $19,000. When bids were opened, the cost for architectural fees plus removal of old lights and installation of new lights totaled only $14,000. The anticipated payback period was first projected to be about four years. Now we anticipate the payback to be less than three years.

Adaptability: This project is easily implemented by any district with the result of improved gym lighting at substantial savings.

Contact: William A. Byrd
Superintendent
Garnet Valley School District
Box 233
Concordville, PA 19331
215-459-4545 (Ext. 30)

Title: CONVERSION OF OUTDOOR LIGHTING

Practice Description: A district-wide conversion of outdoor lighting was established. This conversion was from incandescent lighting to High Pressure Sodium with Photo-cell control.

Background: This project was established to provide better outdoor lighting, security, and great energy savings.

Effectiveness: We realized in most cases as much as a 75% increase in lighting, while reducing energy use by as much as 300%.

Cost Requirements: Approximate $9,000.00 district-wide for fixtures with a payback of one year or less.

Adaptability: The lighting is very universal and could be adapted to almost any building.

Contact: Wayne George
Maintenance Supervisor
Chartiers Valley School District
2030 Swallow Hill Road
Pittsburgh, PA 15220
(412) 429-2258

Superintendent: Dr. Philip S. Boggio

Title: FLOOD LIGHTS

Practice Description: Installed mercury flood lights on corners of school building.

Background: Increased vandalism of ground floor lights aimed at building prompted alternate plan of lights high on building. Better lighting was accomplished at the same time.

Effectiveness: Vandalism was reduced, and lighting was improved with fewer lights.

Cost Requirements: Cost of lamps was $49 each plus the installation. Payout time was estimated to be 1.50 years.

Adaptability: Available to any school with self installation by own maintenance staff.

Contact: Robert F. Northrup
Director of Finances
Souderton Area School District
139 Harleysville Pike
Souderton, PA 18964
(215) 723-6061

Superintendent: Dr. William E. Maxwell

Title: LIGHTING CONSERVATION

Practice Description: Interior lighting is replaced by energy-saving fluorescent lamps which have equal footcandles and lower wattage. Exterior lighting is replaced by low pressure sodium lighting.

Background: The district has taken a proactive stance toward energy conservation. The retrofitting of lighting is one of a number of measures employed to contain energy costs.

Effectiveness: Improved lighting and utility savings have resulted. The program will replace 5700 watts of incandescent lights with 618 watts of alternate lighting power.

Cost Requirements: The LP Sodium lights in the exterior cost $1,894.00. The payback is conservatively estimated at 2.1 years.

Adaptability: Easily adpated.

Contact: Bruce Wagner
Supervisor of Maintenance
East Penn School District
640 Macungie Avenue
Emmaus, PA 18049
215-967-3101 (Ext. 250)

Superintendent: Dr. Richard Brothers, Acting

Title: STEAM HEATING SYSTEM

Practice Description: Our steam heating system in our high school is better maintained by the addition of a water softener to reduce make-up water hardness, a make-up water meter to gauge the amount of boiler addition chemicals as well as check on steam line leaks and the installation of chemical addition feed pumps to meter the amount of chemicals added to the boiler water. Boiler water is sampled twice a week by school staff and chemical additions made to maintain a high Ph. Sodium sulfite, neutralizing amine and an alkalinity additive are used as additives.

Background: We know even the slightest build-up of scale and soot in/on the boiler tubes reduces efficiency. We felt we needed a more accurate and less costly means of caring for our boiler water in order to gain maximum efficiency and prolong boiler tube life. All work could be done by school staff.

Effectiveness: We save money by purchasing our boiler water chemicals in bulk. The water meter allows us to monitor leaks on a continual basis and our chemical feed pumps allow us to add the correct chemical mixture to our boiler water. Fuel consumption is reduced by keeping soot and scale build-up to a minimum. Boiler tube life is extended. There is less chance of a high water/sewer bill due to an undetected leak.

Cost Requirements:

Costs:	Staff time	
	Water softener	- $300
	Chemical feed pumps	- $110
	Water meter	- $ 40
Payback:	Unmeasureable, but potentially short.	

Adaptability: This practice should be very adaptable to a similar boiler system.

Contact: Gary L. Seymour
Secretary/Business Manager
Canton Area School District
139 E. Main Street
Canton, PA 17724
717-673-3191

Superintendent: Dr. Jack D. Lawrie

Title: STORING WATER FOR HEAT TRANSFER

Practaice Description: Our heating system permits us to store 50,000 gallons of water for heat transfer. Rather than draw electrical energy throughout the day to maintain a set degree, we overheat the stored water during after peak hours. Costs are about one-third normal rates at that time.

Background: An all-electric school can be a budget draining proposition. The excessive costs of heating and the difficulty of maintaining proper temperature in frigid weather prompted the practice. Pennsylvania Power & Light assisted in gathering information.

Effectiveness: The most practical benefit was a substantial $12,000 reduction in heating cost of the building last year. Additionally, the comfort control is better than previous years.

Cost Requirements: The only costs were those of monitoring electrical usage. Pennsylvania Power & Light did this at slight expense.

Adaptability: Our heating system is unique and I doubt there are many others capable of using the practice.

Contact: Forrest Shurock
Maintenance Supervisor
Shamokin Area School District
2000 West State Street
Shamokin, PA 17872
(717) 648-5752

Superintendent: John D. Jenkins

Title: POOL BLANKET

Practice Description: The Pennsylvania Power and Light Company completed an energy audit at the Tamaqua Area Senior High School. The KWH utilization was recorded for September, 1981, and February, 1982. After analysis of data, a recommendation was made that energy savings and cost reduction would be realized by purchasing a pool cover or blanket. This cover would be utilized for 10 to 12 hours/day and on weekends.

Background: As to the purchase of a pool cover vs. pool blanket, data favored the purchase of a pool blanket. It was found to be more durable and easier to handle. In addition the stainless steel winder was constructed to withstand pool conditions.

The pool blanket will reduce:

1. Evaporation and the need to replace evaporated water with 76° heated water.

2. Humidity and decrease the need to heat air otherwise required by air exchange.

3. Peak demand load.

Effectiveness: The program is in the first month of operation. Using the computer calculations from the Pennsylvania Power and Light Company, the district should realize a $13,000.00 annual savings.

Cost Requirements: Cost for a pool blanket and stainless steel winder was $5,800.00. The payback period will be realized in one-half of a year.

Adaptability: The energy savings depends upon the fuel being used in heating the building. Tamaqua Area Senior High School is totally electric. Under this condition, savings are the greatest when compared with coal or oil.

Contact: Dr. H. Bruce Geiger
Superintendent
Tamaqua Area School District
Box 112
Tamaqua, PA 18252
717-668-2570 (Ext. 205)

MATERIALS/EQUIPMENT PRACTICES

Title: JOINT PURCHASING COUNCIL

Practice Description: A Joint Purchasing Council is formed under the authority of the Pennsylvania School Code to solicit bids for supplies, equipment and services. The CSIU serves as the administrative support to the operation, preparing bid specs and awarding information as directed by the school business administrators. Since it was formed, the council has awarded bids for general classroom supplies, xerographic paper, cafeteria supplies, audio visual equipment, custodial supplies and most recently, group-term life insurance.

Background: Similar ventures in other intermediate units, hospitals and other agencies led the CSIU to initiate its joint purchasing program. All districts, AVTS units and the CSIU are participating members.

Effectiveness: Cost savings ranging from 10-15% on many items, reduced administrative effort due to the letting of one bid, and the general upgrading of quality of materials are all benefits derived from council efforts. Savings on life insurance premiums averaged 27% across all participants.

Cost Requirements: The CSIU provides the support services through its management service programs, but does collect a small administrative fee for serving as administrator of the life insurance program.

Adaptability: The practice can be readily implemented wherever a spirit of cooperation exists across a group of school agencies. Several such councils exist across the state.

Contact: J. Christopher Kerwin
Assistant Executive Director
Central Susquehanna Intermediate Unit
P.O. Box 213
Lewisburg, PA 17837
(717) 523-1155, Ext. 236

Executive Director: Dr. Patrick F. Toole

Title: DAILY ATTENDANCE COMPUTER PROGRAM

Practice Description: The daily attendance program provides a system to maintain our daily student attendance. The key features include:

1. A daily printout of all students who are absent for that day. Beside the name of each absentee is the total number of days that student has been absent for the year.

2. The ability to quickly identify all those students who have failed to submit excuses for their absences.

3. The ability to list each student in the school with the total days each has been absent. Such lists are required for the state mandated attendance procedures and the district report card procedure.

Background: The program was developed to alleviate the attendance keeping tasks that are particularly burdensome for a school our size (1,800 students). In the past it was very difficult and time consuming to identify students who have missed an excessive amount of school as well as those who have not submitted written excuses for their absences. Periodically we also have to provide a listing of all our students with the number of absences in a specific time period. This had to be done by hand with the attendance clerk examining each attendance card individually.

Effectiveness: On a daily basis the attendance clerk still spends a comparable amount of time as was the case before implementation of the program. This time is spent in-putting the information into the computer. However, there is considerable savings in time when identifying students with a large number of absences and those who have failed to submit the necessary excuses. Another sizable savings of time occurs each occasion a listing of students with absences is required. This happens at least six times a year. In addition, the information we now possess is more accurate and our attendance procedure is more accountable. A card reader would greatly reduce the time to input the information.

Cost Requirements: It was necessary to purchase an Apple II+ system with two disk drives, a monitor, printer, and PFS data management program. The material costs the school approximately $2,500. However, it should be noted that the computer is used primarily for instructional purposes and the attendance program requires very little time. It is difficult to put the payback in terms of dollars. What it has provided for us is a much more efficient system for maintaining our attendance and quickly retrieving the information we need.

Adaptability: The system could be used easily by other districts that have the necessary hard and software.

Contact: John V. Casey
Principal
State College Area Junior High School
State College Area School District
2180 School Drive
State College, PA 16801
(814) 237-5301

Superintendent: Dr. William E. Babcock

Title: STANDARDIZATION OF ATHLETIC EQUIPMENT

Practice Description: The athletic directors from two junior high schools and the high school meet to determine specifications for equipment and uniforms. Their considerations are based on any necessary PIAA restrictions, league requirements and past experience with different types of equipment and supplies.

The recommendations are reviewed by secondary administration, and then passed on to the business administrator for bid. When the bids are received, the business administrator and athletic directors analyze the bids and recommend awarding of bids. These are forwarded through central administration for Board approval.

Background: It was necessary to carry a large inventory of different sizes of equipment for various teams. Since equipment and uniform colors were not standard, the schools could not share with each other.

Effectiveness: We now have standard equipment and uniforms that can be shared among schools, e.g., a small football player at the high school can be equipped with pads and a uniform from the junior high inventory. We also feel we are getting equipment at the lowest possible price because of the combined bidding process.

Cost Requirements: The only cost involved was administrative time in setting up the practice. The benefits have been immediate and farreaching.

Adaptability: This practice can be implemented very easily and very quickly in any district with more than one school using the same types of equipment and uniforms.

Contact: Dr. Ronald Y. White
Supervisor of Secondary Education
Centennial School District
Centennial Road
Warminster, PA 18974
(215) 441-6227

Superintendent: Dr. Harry P. Quinn

Title: STANDARDIZATION OF EQUIPMENT

Practice Description: A key consideration for all future purchases will be the standardization of equipment. Our district hopes to realize long-term savings by standardized selections of lighting, custodial-maintenance equipment, audiovisual machinery and similar products.

Background: This program was designed to reduce down-time for equipment and to reduce the number and cost of parts inventory.

Effectiveness: This process yields reductions in down-time and cost of parts inventory.

Cost Requirements: This is difficult to calculate for two reasons. Payback cannot be determined until the nonstandard equipment is replaced. Secondly, the process is in its initial stage and will require at least six years to deliver accurate statistics.

Ability: Easily adapted.

Contact: Mr. James Carl
Assistant Supervisor of Maintenance
East Penn School District
640 Macungie Avenue
Emmaus, PA 18049
(215) 967-3101, Ext. 236

Superintendent: Dr. Richard Brothers, Acting

Title: DIRECT BILLING FOR CAFETERIA MEALS

Practice Description: Each parent is encouraged to sign a form to allow them to be directly billed for the meal and milk their children purchase. Students have the option of bringing their lunch, buying their lunch, or just buying milk. As they pass through the lunch line, the cashier marks their cards accordingly. Parents are billed only for what their children purchase. If a parent chooses not to participate in the billing system, they are informed that if their child should lose his/her lunch or money, they will be responsible for bringing a lunch or money to the school. The student always eats and the responsibility for payment (one way or the other) rests with the parent.

Background: There were several factors that generated movement in this direction:

1. Our weekly/daily sales of lunch tickets was cumbersome, time consuming and not particularly effective.

2. Parents tried to transfer responsibility for their children eating to the school.

3. New regulation surfaced regarding the confidentiality of free and reduced lunches. Our ticket system didn't comply.

4. Much instructional time, office time, etc. was worked trying to make sure kids had lunch.

5. Out of compassion for children, staff members routinely gave money to students who came without a lunch or the money to buy it. Few collections took place.

Effectiveness: The teachers, office staff and principal do not spend countless hours selling tickets, calling parents because of lost lunches or money, dealing with irresponsible parents who don't pack lunches or remember to give their child money and helping the young child through the trauma of lunch problem. The integrity of free and reduced lunch is maintained. We have also improved our rate of collection (99%).

In addition, full responsibility is placed upon the parents, to provide lunches, apply for credit, and pay bills. The children are not the scape goats.

Cost Requirements: Sixty (60) hours per month of clerk time. Payback was immediate since ticket sales and money reconciliation costs were off setting. Teacher instructional time and office time were saved as well. No dollar figure is attached to that, but efficiency was obviously improved.

Adaptability: I would suggest that it is quite adaptable to schools in which the students can be easily visually identified and there exists a value system where paying bills is expected. High student mobility may be a problem from the collection standpoint.

Contact: Mrs. Jean Hill/Mr. John Dentith
Secretary-Business Manager/Elementary Principal
Pen Argyl Area School District
1620 Teels Road
Pen Argyl, PA 18072
215-863-9093 Ext. 202
215-759-2520

Superintendent: Russell H. Roper

Title: COMPACT CAR TRANSPORTATION

Practice Description: As a small district, we have a small number of students who must be transported to parochial and private schools beyond our district boundaries. We have purchased a Chevette to transport these students at less cost than a larger vehicle. At times it is also used by district personnel for business travel.

Background: Cost of transportation and long district travel.

Effectiveness: Our costs for transporting out of district students has decreased in those areas we can use the Chevette.

Cost Requirements: We save approximately $1,800.00 a year by using the Chevette instead of a van.

Adaptability: Easily for small districts with small numbers of students to transport.

Contact: Mrs. Jean O. Hill
Business Manager
Pen Argyl Area School District
1620 Teels Road
Pen Argyl, PA 18072
215-863-9093 Ext. 202

Superintendent: Russell H. Roper

Title: JOINT PURCHASING BOARD

Practice Description: Fourteen districts have formed a cooperative purchasing board which is coordinated by the Intermediate Unit staff. This board selects high volume items purchased by all districts and agrees upon specifications for bidding their combined volumes. The Intermediate Unit staff advertises and receives the bids. This is followed by awarding of bids by the board. Each district then orders the materials which it had agreed to purchase. The materials are delivered directly to the district and invoices are paid by each district.

Background: This practice was adopted by the districts following a presentation of the concept by Intermediate Unit.

Effectiveness: Districts have saved from 5% to 10% on costs of materials and in many cases, have improved the quality of the items they purchased.

Cost Requriements: The practice was initiated through Intermediate Unit management staff. Approximately $1,000 for staff time and materials were expended.

Adaptability: Readily adaptable to any area.

Contact: Dr. Robert Stromberg
Assistant Executive Director
Seneca Highlands Intermediate Unit 9
119 Mechanic Street
Smethport, PA 16749
(814) 887-5512

Executive Director: Dr. Frank A. Rackish

Title: COMPUTER ACCOUNTING OF STAFF ABSENTEEISM

Practice Description: This program was designed to provide an in-house computer accounting of staff absenteeism. A Radio Shack Model III computer was used to create an attendance record for each of the school district's 550 employees. A locally developed program is used to record daily absences of each employe coded for illness, personal or conditional leave, funerals, jury duty, deductions, vacations, conventions, and workman's compensation. Data is recorded on a monthly worksheet which includes the name of each employe. Data is recorded in the computer montly. Month and year-to-date reports are produced and distributed to principals and central office personel.

Background: In an effort to reduce the costs of contracted computer services, and to provide a more competent and reliable computer analysis of absence data, this program was developed. Patterns of employe absences, differences among district buildings, and costs for substitute teachers can be analyzed readily from the data generated by this program.

Effectiveness: Building principals and central office personnel are provided monthly reports of teacher and staff attendance. This data has assisted in identifying patterns in individual absence cases, provided early warnings of individuals who were low on sick leave and provides data base to measure the effects of changes in the district calendar on attendance.

Cost Requirements: No costs were required beyond the costs the time of the district employe to develop the computer each month.

Adaptability: This program is adaptable by any school district interested in investing the time to create the data file and train a secretary to use the computer program. The program is available from the individual listed.

Contact: Nicholas Ignatuk
Coordinator of Math and Science
Ridley School District
1001 Morton Avenue
Folsom, PA 19033
215-534-1900

Superintendent: Dr. Herbert Pless

Title: SHUTTLE BUS SYSTEM

Practice Description: This program was developed as a cost saving in the transportation department. For several years transportation was arranged so all students at Iroquois Jr.-Sr. High School arrived at approximately the same time. This required seven buses. In September, 1981, a "Shuttle System" of transportration was initiated, whereby students are delivered to the school at different times, and the buses make a second trip. This has dropped the number of buses from seven to four. Current practice is for students who arrive at school first in the AM are taken home first in the afternoon.

Background: The main purpose of this project was to lower transportation costs. Prior to initiating the "Shuttle System" seven drivers all left the bus garage for a pick-up of Jr.-Sr. High Students, then had a long lay-over before leaving for elementary students. The drivers were compensated for the lay-over time at the regular rate of compensation. The new system uses only four drivers instead of seven, hence saves the cost of wages for three persons morning and afternoon.

Effectiveness: Wages and benefits for three drivers are saved as a result of the practice.

Cost Requirements: No costs.

Adaptability: Depends upon current bus schedules, number of buses, starting time of school, etc.

Contact: Allen C. Ogden
Business Administrator
Iroquois School District
4231 Morse Street
Erie, PA 16511
814-899-7641 Ext. 53

Superintendent: Dr. Edward L. Phillips

Title: DECENTRALIZED TELEPHONE SYSTEM

Practice Description: The centralized telephone system was eliminated. Previously an operator was located in the central administration office who transferred calls within the office and to three other schools. Each building now has its own telephone listing and receives calls directly. Comkey 2152 systems were installed in two schools and a Comkey 416 was installed in the third school.

Background: Rapidly escalating connecting line charges to buildings 1/2 mile from switchboard prompted the adoption of this practice.

Effectiveness: Line and equipment charges were reduced by 50%.

Cost Requirements: Installation charges were $6,700 versus annual savings of $12,000 with a payback of just over six months.

Adaptability: Anyone with a PBX system and substantial interconnecting line charges.

Contact: C. Richard Merryman
Director of Business and Support Services
Unionville-Chadds Ford School District
Rt. 82
Unionville, PA 19375
215-347-2004

Superintendent: Dr. Harold M. Wynne

Title: SCHOOL DISTRICT CENSUS VIA COMPUTER

Practice Description: This program has produced a method of conducting an in-house school district census on a microcomputer. Existing census data was used to create a working census file on a Radio Shack Model 16 computer with 2 hard disk drives (16 megabyte). A locally designed program was developed to construct, maintain and print the files and census reports. This computer and high speed printer are also used to generate individual records on separate sheets for use by the census takers each year. Data is updated from these sheets as necessary. New files are created as needed.

Background: This program was developed to reduce the annual cost of computer services for census reports and to provide the district with greater control and flexibility of its census data for enrollment projections and other planning needs. Individual attendance area reports are now available, including kindergarten projections, that were not available from the previously employed computer firm.

Effectiveness: The program realized a net savings of $5,000 in computing service costs to the district after keypunching costs were accounted for. In addition, the availability of the data for immediate analysis provides the district with a valuable tool in planning and forecasting for enrollment and community trends.

Cost Requirements: The program costs the district an average of $1000/year for the salary of a keypunch operator to enter the appropriate data. An existing administrative computer handles the work at no additional cost for this application. Other costs for census takers remain unchanged.

Adaptability: This program should be readily adaptable to any district interested in using a microcomputer for administrative functions. The census program is available by contacting the individual listed.

Contact: Nicholas Ignatuk
Coordinator of Math and Science
Ridley School District
1001 Morton Avenue
Folsom, PA 19033
215-534-1900

Superintendent: Dr. Herbert Pless

Title: DATA CONSORTIUM

Practice Description: The Northwestern Lehigh School District, along with five other school districts in the area, the Intermediate Unit, and Vo-Tech School have combined to form a Data Consortium.

The Data Consortium consists of a Systems 34 Computer (mainframe) housed at the LCVo-Tech School Data Center, and a CRT 525 Model 12 display station, mode, and printer in each school district.

These displays are used for direct data entry and immediate access to data. Several different data input persons in the district insure someone available at all times to access information. This system is used for payroll, budget, student attendance and grade reporting; and can be expanded at any time to include many other functions.

Background: It was determined that much time was being spent by many office personnel on manual application of budget and payroll, along with teacher time on student attendance and grade reporting. A more efficient method was sought to maintain accurate records while reducing time spent on manual application. However, to purchase such a computer system would have been too costly for a small district such as ours. It was more practical, therefore, to purchase just the display and printer and hook into the consortium at the Vo-Tech Data Center via telephone lines.

Effectiveness: Faster information retrieval; reduction of time by personnel on manual application; increased roster and student call-up information available; increased budget data; relieve demand for additional personnel; decrease time needed by teachers for attendance and grading.

Cost Requirements: $25,700 was the initial investment to set up the system with the Vo-Tech Data Center. Payback is measured by the capacity to fully utilize information available by immediate access without increase in personnel, etc.

Adaptability: It is being used by five other school districts, the IU and Vo-Tech. With the initial purchase or rental of equipment, other districts in the area can utilize the program, also.

Contact: Mrs. Jean Heiney, AC 215, 799-1327
Data Center Supervisor, Lehigh County Vo-Tech School
Northwestern Lehigh School District
R.D.#2, Box 67
New Tripoli, PA 18066
215-298-8661

Superintendent: Robert A. Nagle

Title: CENTRAL BOOK DEPOSITORY

Practice Description: The operation of a central book depository for all basic textbooks common to all seven (7) elementary schools results in less duplication of inventory. The main elements of this practice are as follows:

1. In spring, each school principal identifies textbook needs, based upon anticipated fall enrollments, plus three (3) additional shelf copies.

2. Unneeded textbooks are returned to a central book depository, where they now become available for any other school's use.

3. Instead of ordering separately, a single purchase is made in July, bringing the depository shelf-count up to a predetermined count.

4. After school opens in September, each school's textbook inventory is adjusted to the school's enrollment, plus three (3) additional shelf copies.

Background: The seven (7) elementary schools admit/withdraw approximately two hundred (200) students during the course of an instructional year. With this amount of enrollment fluctuation, a single school might admit 10-12 students at a grade-level, but can secure needed textbooks within a day from the central textbook depository.

Effectiveness: Each school need retain only three (3) copies of extra student textbooks, yet has access to additional copies within a day.

Cost Requirements: No "additional" costs are incurred. An existing district office assumes a coordinating/disseminating function for this practice.

Adaptability: Any district that adopts common basic textbooks in more than one school could establish such a central depository system.

Contact: Melvyn L. Bollinger
Curriculum Services Director, K-6
Parkland School District
2200 Main Boulevard
Allentown, PA 18104-1399
(215) 434-6154

Superintendent: Carmen J. Riola

Title: ELECTRONIC TYPEWRITER AND QUALITY PRINTER IN ONE MACHINE

Practice Description: The district purchased an electronic display typewriter (Facit 8110) with 1,000 character format and phrase memory and a 5,000 character text memory. The text can be corrected and edited after input. A stored text can be automatically printed out an unlimited number of times. The line display allows quiet and easy additions, deletions, and corrections before print-out on the paper. Machine has communication interface with Apple micro-computer.

Background: The district was in need of a printer that would print letter quality reports. We already had a high speed Matrix Dot printer to print standard reports; therefore, if we purchased a letter quality printer separately, it would be standing idle a large percentage of the day.

Effectiveness: Having both a letter quality printer and electronic typewriter in one machine with use of Applewriter, reports can be entered, corrected, and edited on an Apple computer and final reports printed on electronic typewriter. Form letters can be stored within typewriter.

Cost Requirements: The electronic typewriter with an interface costs $2,137.50. If an electric typewriter and letter quality printer were purchased separately, there would be an immediate payback. Savings will also be realized each year on service and maintenance of the additional machine.

Adaptability: This procedure can help any district by reducing the capital outlay of equipment - saving the cost of purchasing a printer and typewriter separately. When replacement of existing equipment becomes necessary, it would be advantageous to replace with electronic typewriter serving a dual purpose.

Contact: Glenn R. Achey
Assistant Director of Business Affairs
Cornwall-Lebanon School District
105 East Evergreen Road
Lebanon, PA 17042
(717) 272-2031, Ext. 21

Superintendent: Dr. Marlin H. Kessler

Title: CENTRALIZED OFFICE SERVICES

Practice Description: Administrators throughout the district may pick up their telephone to dictate correspondence into the transcriber on the desk of the word processing secretary. In addition material of a more complex nature can be sent in by inter-district mail. Once entered on the word processor it can be sent back as a draft, revised or rearranged before final printing without complete retyping.

Teachers can call and after entering their complete list of test questions draw out selected questions each time that a test needs to be prepared. The questions can be rearranged without retyping.

The copy center is beside the word processing center so that copies can be prepared for use, all within two day turnaround, depending on the size of the document.

Background: The district offices were moved to a different location. We took advantage of the change to realign the office services. A new phone system, transcribing equipment and two word processing stations were installed along with the existing copy center.

Effectiveness: Vastly improved services that were previously unavailable at a reduction in cost.

Cost Requirements: Transcribers (2) were approximately $2,500. Word processing stations (2) were approximately $20,000. Payback period is estimated at 12-14 months.

Adaptability: Any district willing to make a commitment to centralized services can improve those services threefold. Savings would be dependent upon the present size of the secretarial staff.

Contact: Dr. Richard G. Creasey
Superintendent
Colonial School District
2000 Joshua Road
Lafayette Hill, PA 19444
215-834-1670 Ext. 101

Title: PROPANE FUELED VEHICLES

Practice Description: School buses and vans have been outfitted with propane conversion units, making it possible to run them on propane fuel. A propane storage tank has been installed on the bus parking lot for convenient refueling. Buses run smoothly and require less maintenance than with gasoline as fuel. The propane-fueled buses have a range of about 225 miles compared to a range of about 270 miles for gasoline-fueled buses.

Background: The rising cost of gasoline prompted the study of alternate fuels for school buses. Propane was selected because of its availability and pricing which is not related to deregulation. Propane offers the added advantage of reduced maintenance just as does natural gas.

Effectiveness: The operation of the propane-fueled vehicles is at least as good as when they were fueled with gasoline. The fuel cost per mile shows a savings of about 40% compared to gasoline.

Cost Requirments: The cost of conversion in 1982 was $1100 per bus and $800 per van. At the rate of reduction of fuel cost to date, the "payback" period will be twelve months. Reduced maintenance costs are difficult to project but will become apparent over time.

Adaptability: Any school district can arrange for the conversions and for the availability of propane.

Contact: Dr. Warren W. Moser
Business Manager
Boyertown Area School District
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Boyertown, PA 19512
215-367-6033 Ext. 412

Superintendent: Dr. James R. Replogle

Title: DIESEL POWERED VEHICLES

Practice Description: The Centennial School District, as it buys new vehicles for its transportation department, will replace the gasoline vehicles being traded with new diesel powered vehicles.

Background: This program was initiated because of the rapid and continually escalating cost of gasoline and the proven cost savings of maintenance on a diesel engine versus a gasoline engine.

Effectiveness: The average miles per gallon on a gasoline bus is 5.0, whereas a diesel bus will achieve 8.0 or better thereby reducing expenditures for fuel.

Cost Requirements: The additional cost per vehicle is $3,000 per bus with a 2.8 year payback based on 25,000 miles per year.

Adaptability: Many are already running or converting as they buy replacements and can readily be adapted to a district's replacement program. The only possible hang-up would be a diesel storage tank.

Contact: John Lynford Rhodes
Transportation Manager
Centennial School District
Centennial Road
Warminster, PA 18974
215-441-6110

Superintendent: Dr. Harry P. Quinn

PERSONNEL PRACTICES

Title: USE OF "LAY EDITORS"

Practice Description: "Lay Editors" are used to correct and grade English compositions in grades 7 through 12. This allowed the district to maintain class size at a reasonably economic level and still require composition assignments of all students based on an annual schedule.

Each English teacher in the district is assigned one "Lay Editor" who spends one day each week of the school year in the classroom working with the students and teacher. This Lay Editor uses a district standardized composition grading procedure to evaluate all work and shares the results of that evaluation with each student.

Background: Surveys of past graduates indicates that one of their major areas of concern was the lack of indepth training and experience writing compositions. Meetings with English teachers led to the conclusion that the teacher load in this district (130 to 160) was too large for them to increase the number of compositions required of each student each year. The recommendation by the teachers was to increase the faculty, reducing class size, thereby allowing them more time for composition work.

The alternative to increasing the overall instructional staff was employment of Lay Editors.

Effectiveness: This program now in its fifth year has produced remarkable results. Recent surveys of past graduates who have gone off to further their education have indicated that English composition courses on campus are among the easier challenges they encounter.

Cost Requirements: One Lay Editor is supplied to each English teacher at an annual cost of $2,000 per Lay Editor. This is considerably a lower outlay that would have been needed had we expanded the faculty in an effort to reduce class size.

Adaptability: In-service training English teachers prior to the institution of this type of program is absolutely critical. Without this there is a tendency on the part of teachers to feel threatened by an "outsider" in their classroom one day per week.

Contact: Dr. Glenn M. Moyer
Superintendent
Littlestown Area School District
Maple Avenue
Littlestown, PA 17340
717-359-4146

Title: SPLIT TEACHING ASSIGNMENTS

Practice Description: The district utilized split teaching assignments (assignments in more than one building or at one level) to reduce the number of professional staff members in the Art and Music departments.

Background: Declining student enrollment prompted the administrative staff to carefully evaluate the teaching schedules of all members of the Art and Music departments.

The district anticipated one vacancy in each department through attrition and, therefore, set out to reduce staff by eliminating peripheral activities and assignments, tightening each teacher's schedule, increasing the student/teacher ratios in instrumental and vocal lessons and by increasing the efficiency and productivity of each professional staff member through the utilization of split teaching assignments throughout the district's four buildings.

Effectiveness: The district was able to reduce the Art staff by one (from 6.5 to 5.5) and the Music staff by one (from 6 to 5) without reducing the actual contact hours for children in these programs. Estimated minimal cost savings equals $34,920.

Cost Requirements: No additional costs other than the time spent by the administrative staff in developing the realignment process.

Adaptability: Split teaching assignments could be utilized most effectively in small districts which do not have vast distances among the several buildings.

Contact: Dr. John J. Zimmerman
Superintendent
Montoursville Area School District
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Montoursville, PA 17754
717-368-2491

Title: ADMINSTRATIVE CONSORTIUM

Practice Description: The practice is a voluntary cooperative effort between the Lower Merion, Haverford and Radnor School Districts. The consortium operates under the general supervision of the three superintendents with ongoing detailed operations supervised by an Executive Committee composed of an Assistant Superintendent from each district and a representative from the Archdiocese of Philadelphia. The consortium's work is carried out by an Executive Director, Secretary and appropriate staff. The primary function of the cooperative effort is to implement and administer the ECIA Chapter I programs of the participating districts. The Executive Committee also provides a vehicle for "spin-off" cooperative activities in the areas of in-service and curriculum development. The specific administrative responsibility for and the housing needs of the consortium are rotated among the participating districts on a three year cycle.

Background: The consortium was created in 1965 in response to the advent of ESEA Title I and Title III. The size of the grants, a history of interdistrict contacts, and the desire to provide effective and efficient administration of both the funds and the accompanying regulations prompted the cooperative effort. It was believed that singly none of the participants would provide sufficient administrative attention whereas through a consortium such oversight would be obtained.

Effectiveness: The consortium has operated successfully for 17 years. There has been absence of financial or regulatory compliance problems due to close administrative control. The functioning of the Executive Committee and the Executive Director permits coordination where needed without the sacrifice of district autonomy in matters of internal concern. Finally, cooperative effort provides a forum where other, less formal, exchanges and coordinated efforts are discussed.

Cost Requirements: The operations of the consortium are financed through the use of ECIA funds with joint expenditures being apportioned to each district in relation to their percentage of the total allocation. Expenses relating wholly to a single district are, of course, charged to that district. The consortium, under the supervision of the Executive Committee and the LEA, maintains its own accounts, budgets, and financial reporting systems.

Adaptability: The adaptability of the practice would not, with certain adjustments dictated by local conditions, be difficult. However, it would be considerably easier if the participating districts are geographically close, compatible in basic philosophy, and willing to exercise a certain degree of flexibility and mutual tolerance for each other's particular needs and problems. If neutral leadership cannot be obtained, considerable care must be exercised in approaching problems with a diplomatic outlook.

Contact: Mr. Richard M. Force
Executive Director, Main Line Project Learning
Haverford Township School District
1801 Darby Road
Havertown, PA 19083
215-642-6326

Superintendent: Dr. Matthew W. Costanzo

Title: TIME CLOCKS - STAGGERING WORK HOURS

Practice Description: Time clocks have induced people to be on time. When they are late or leave early there is a deduction in money whenever they do not work their assigned hours.

Staggering of hours has reduced overtime by having persons in the building working while evening activities are being held, thereby, reducing the number of overtime hours having to be paid to additional help to cover activities and close buildings.

Background: Time clocks were brought into district because persons were coming in late and marking their time sheets with the hour they were scheduled to report and also leaving early, not working their scheduled time, but reporting that they did.

Staggering hours to cover night activities to reduce overtime.

Effectiveness: Installation of time clocks keeps personnel honest. More work hours realized. Staggering hours, saves money.

Cost Requirements: Time clocks cost $188.00 per school - Monies payback realized within a few months.

Adaptability: Time clocks can be put into buildings as long as work agreement does not have clause against same.

Schools change scheduling of times worked by personnel to cover building until all activities are over wherever possible.

Contact: Howard S. George
Director of Maintenance and Operations
William Penn School District
Bell Avenue and MacDade Boulevard
Yeadon, PA 19050
215-284-8029

Superintendent: Dr. Philip S. Esbrandt

Title: REORGANIZATION USING CITIZEN ADVISORY COMMITTEE

Practice Description: The district reorganization was implemented through the utilization of a Citizens Advisory Committee which worked with the Board and administration in developing a long range plan which included the reorganization of the school district and the closing of six schools.

The Citizens Advisory Committee carefully studied enrollment projections, school programs, school facilities, age/grade patterns and organizations, community housing patterns and trends, financial data, and student residence patterns to determine the most viable organization pattern for the school district.

The administration and Board was an integral part of the study. The administration worked closely with the advisory group as data was being analyzed. The Citizens Advisory Committee developed a series of recommendations for the Board. The committee presented their options to the Board for consideration.

After careful deliberation the Board, through the superintendent, recommended a plan to the community. Following community comment, the final reorganization was adopted.

Background: The reorganization was brought about by a significant decline in enrollment and the need to control the financial costs of a school district with lower student enrollments.

Effectiveness: The utilization of the advisory committee provided:

1. A committee of community representatives who were involved and well informed regarding the need, process, and benefits of reorganization.

2. Interested persons who committed significant amounts of time to a careful study of all parameters involved in reorganization.

3. Support to the Board in selling the reorganization to the community.

Cost Requirements: The advisory committee was a volunteer organization. There were minimal costs for the materials required for the various reports. District administrators and clerical staff provided services to the committee as part of their district responsibilities.

Adaptability: The Citizens Advisory Committee model can easily be adopted or adapted with minimal modifications for implementation in other school districts.

Contact: Dr. Charles H. Faust
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Baldwin-Whitehall School District
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Pittsburgh, PA 15236
412-884-6300 Ext. 22

Superintendent: Dr. Rosemarie E. Cibik

Title: SUPERINTENDENT COMMENDATION CERTIFICATE

Practice Description: This practice offers a simple method by which staff morale can be improved, and by which a more cooperative staff spirit can be realized. It recognizes exceptional performance and service. The Superintendent maintains a supply of "SUPERINTENDENT COMMENDATION" certificates. Upon recommendation of his administrators, and through his personal knowledge and observation, the superintendent composes a "Commendation" and presents the certificate to recognized employees.

Background: The practice was developed to increase staff interest and cooperation, and improve creativity and performance. Prior to initiation of the "Commendation" practice, the Superintendent conducted monthly "Superintendent Roundtable" meetings with staff (in addition to monthly meetings with students and monthly meetings with citizens). During one of the staff meetings the subject of staff morale and recognition of staff for exceptional performance was discussed. The "Commendation" idea grew from the discussion. It has been expanded to include "Superintendent's Commendation" for exceptional students also.

Effectiveness: The program has produced a high degree of interest which has resulted in increased cooperation, creative ideas, and improved staff morale.

Cost Requirements: There are no appreciable monetary district operational costs associated with the program. The special "Superintendent Commendation" certificates are printed by Intermediate Unit 9 for a nominal fee.

Contact: Allen C. Ogden
Business Administrator
Iroquois School District
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Erie, PA 16511
814-899-7641 (Ext. 53)

Superintendent: Dr. Edward L. Phillips

Title: THE NON-UNION SHOP

Practice Description: Non-instructional staff are not unionized. Wherever possible all new staff are employed to work a four-hour day. They are paid straight time and receive no fringe benefits. Staff may work an eight-hour day to substitute for an absent employee.

Background: Most of the Delaware County School Districts use contractors to provide services normally performed by non-instructional personnel. Rising costs compelled the district to adopt this practice to enable it to retain control of personnel and maintain adequate security of property.

Effectiveness: 1) The district is able to draw from a much larger pool of applications--especially retired men, housewives with children in school and women seeking to supplement their family income; 2) A ready supply of substitutes are available by "doubling up" for absent employees; 3) Significant savings are experienced by paying employees only for days worked and paying no fringe benefits; 4) The district has complete control of who is employed, assignments, transfers, etc.; security problems are minimized, workers are readily available because they live close to the schools, and a spirit of camaraderie prevails because most are personal friends and live in the community.

Cost Requirements: No extra costs are involved, but more time is required to employ, assign and supervise a larger staff who work fewer hours per day. Payback period is immediate.

Adaptability: This practice can be implemented in any district where long term contractual agreements are not in force.

Contact: Theodore F. Cramer
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Aston, PA 19014
(215) 494-1104, Ext. 19

Superintendent: Dr. John M. Cipollini

Title: REDUCTION IN ADMINISTRATIVE POSITIONS

Practice Description: Assistant Building Administrators and District Subject Coordinators are assigned districtwide responsibilities formerly performed by Central Office Administrators.

Background: Decreasing enrollments with a resultant decrease in the teaching staff made it necessary to reduce Central Office Administration. The need to reduce the supervisory staff is in correspondence with a reduction in enrollments and other staff personnel; however, the need for certain management services did not diminish.

Effectiveness: Required services are able to be maintained at a lower cost. Assistant Principals and District Coordinators are giving valuable experience in assuming districtwide responsibilities. For example, the Junior High School Assistant Principal is responsible for district attendance accounting, the High School Assistant Principal is responsible for Adult and Summer School, etc.

Cost Requirements: No costs were incurred; a minimum of one $30,000 per year central office administrator's salary was "saved" in the implementation of this program.

Adaptability: Normal attrition may offer any district the opportunity to adopt this practice.

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Title: ONE PRINCIPAL FOR FIVE SCHOOLS

Practice Description: One elementary principal administers the five elementary schools located throughout the district. He is assisted by teaching head teachers who serve as coordinators and implement directives of the principal. The head teachers receive additional compensation based on the number of teachers assigned to the buildings.

Background: The district covers 103.3 square miles and, up until 1982, operated six elementary centers. Since the inception of the district, it has been staffed by a principal and a ten-month supervisor. As enrollment increased, the Supervisor's employment was extended to twelve months and later the position guide was changed to assistant principal. Head teachers also existed in the buildings.

When the assistant principal resigned in 1980, the enrollment had declined to the point where it was feasible and economical to eliminate the position.

Effectiveness: The salary of the assistant principal was eliminated.

Cost Requirements: None.

Adaptability: Very easily.

Contact: Mr. James A. Gilmartin
Superintendent
Hamburg Area School District
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Hamburg, PA 19526
(215) 562-2241

Title: EDUCATION OF HEAD CUSTODIANS

Practice Description: 1) We make a special effort to instruct the head custodian on the operation of all the controls of the mechanical equipment in the building. 2) The head custodian keeps monthly energy records of all equipment. 3) The head custodians and his staff know the function of each piece of mechanical equipment (boilers, AC equipment, exhaust fans, lights, water heaters, etc.); 4) Periodic reports are compiled and sent to each head custodian. These reports contain up-to-date energy usage compared to last year's energy consumption and also yearly temperature comparisons.

Background: The program was developed to get the employees involved in energy savings. The program has developed an "Esprite De Corps" attitude in our staff. The publicity the program has generated has been infectious in our other employees (teachers, secretaries, etc.).

Effectiveness: Better employee-management relationships, notable responsibility performance of our head custodians.

Cost Requirements: Only cost was the time spent in educating the head custodians which would be nothing in the monetary value compared to the morale value. Payback period would be immediate.

Adaptability: Very easily. Just a matter of education.

Contact: Clark K. Royer
Supervisor of Buildings and Grounds
Lebanon School District
1000 South Eighth Street
Lebanon, PA 17042
(717) 273-9391

Superintendent: Keith H. Lebo

Title: STUDENT FEES

Practice Description: Lab Fees--Our district had been charging lab fees in Shop and Home Economics. Within the past three years we have expanded this practice to include Art courses and Computer courses (disc and paper fees).

Background: Increasing cost of paper and other supplies that directly benefit students.

Effectiveness: Limited assistance in keeping costs of specialized programs under control. A very good public relations move. It has a psychological impact on many more people than those directly affected.

Cost Requirements: Minimal costs are required. Impacts mostly on teachers of special areas. Since the procedure is aimed at keeping costs down so these programs can be continued, teachers are usually willing to assist in the collection of fees.

Adaptability: For any district having a Shop and/or Home Economics Program.

Contact: Dr. W. Richard Brothers
Director of Curriculum and Instruction
East Penn School District
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Emmaus, PA 18049
(215) 967-3101

Title: SUBSTITUTE AND STAFF ABSENTEEISM SYSTEM

Practice Description: A centralized system of calling substitute teachers to fill the daily needs of the District has been established. Associated with this administrative procedure is a system of record keeping and convenient operational files that is unique and considered exemplary.

Through a system of codes, anecdotal records are maintained on each regular teacher and each substitute teacher employed. Regular staff members call in their absences to a recorded phone following a format of essential information which includes the last four digits of their social security number which has made the system secure. The responses by substitute teachers are recorded including acceptance of work, refusals, no answers or busy phones.

This information is summarized in monthly reports and has proven to be an invaluable management tool in examining absenteeism by building or for individual teachers. The information concerning the work record and responses of substitute teachers is summarized periodically and also examined by appropriate administrators.

The information recorded by the sub-call system has also been of great value in recent years to respond to or challenge claims for unemployment. This complete record of every offer of employment and response by time and date has resulted in considerable monetary savings to the District. The sub-call position is manned by a part-time secretary from 6:00 a.m. to 10:00 a.m. each school day.

Background: Prior to the establishment of this system, each building principal had the responsibility to fill daily substitute needs from a district approved list. With fourteen buildings involved, this practice became costly and ineffective. There was also a great duplication of calls to the same substitute each morning as the fourteen buildings attempted to fill their daily substitute needs.

With the change in unemployment compensation laws which made school districts responsible for the costs of claims, a centralized system of record keeping and control became essential. This was particularly true as enrollments declined and teachers were furloughed and placed on the substitute list. It became important to employ furloughed personnel as often as possible to hold down the costs of unemployment claims. The daily records of the centralized sub-call position are necessary to respond to the Bureau of Employment Security on a routine basis and have also been invaluable in successfully challenging improper claims.

It also became apparent that the need for better management and evaluation of substitute teachers and control of absenteeism could only be accomplished through a centralized system.

Effectiveness: 1) More effective use of personnel; 2) Management of unemployment claims; 3) Management and control of absenteeism; 4) Control of the emergency certification of substitute teachers; 5) Scheduling of substitute teachers evaluations.

Cost Requirements: The costs of this practice are the wages of a four-hour secretary and the recorded phone. These costs are far outweighed by the savings in unemployment claims, more effective use of personnel, and the management controls it provides.

Adaptability: This practice would be cost effective in any school district with a number of buildings.

Contact: Harlan E. Nelson
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Baldwin-Whitehall School District
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Superintendent: Dr. Rosemarie E. Cibik

Title: STAFFING-STANDARDS

Practice Description: The number of square feet of floor space to be cleaned in occupied areas of each building is determined from architechtural drawings of the building. A multiplier is used for areas difficult to clean, e.g., auditoriums, cafeterias, locker rooms. The multiplier is 1.2.

Custodial staffing is determined by the number of square feet to be cleaned in each building divided by 18,000. This figure, as well as other work standards, is taken from a study conducted by Irene Lober, University City Schools, published by ASBO in 1981.

The study determined that custodians should be able to clean 2,500 square feet per hour of work. With the factoring indicated above, this district's custodians clean approximately 16,200 feet of occupied space per shift.

Background: This staffing-standards procedure was developed to determine adequate custodial staffing; to maintain equitable work assignments; to rotate work assignments when considered necessary or desirable; to avoid seniority claims to "easier" assignments.

We believe that the equity factor is a significant one in personnel relations. The staffing standard enabled the district to eliminate one custodial position at a savings of $12,000 each year, plus benefits.

Effectiveness: 1) Equitable assignments, balanced work loads; 2) Eliminated split shifts, part-time custodians; 3) Eliminated one custodial position, saving approximately $16,000 this year; 4) Now have specific criteria for evaluating custodian's performance, particularly significant during probationary period for new employees.

Cost Requirements: 1) Staff time to compute building areas to be cleaned-cost negligible; 2) Purchase of one self-propelled floor machine to decrease cleaning time in one building. Cost $2,800.

Adaptability: May be adopted by any school district, large or small. This is one practice that requires little cost to adopt and relatively little supervision to implement.

Contact: H. Dale Winger
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Frazier School District
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Title: STAFF UTILIZATION STUDY

Practice Description: This practice provides for an annual reduction and/or expansion of staff and serves as a springboard for preparation of budget and transportation routes. Practice includes:

1. Enrollment projections are made in March of each year.

2. Staff needs are determined in March of each year based upon the number of class sections per grade and/or the number of classes per subject for the school district.

3. Employees that contemplate retirement are given financial incentives to submit resignation before March 1.

4. Tentative assignments are made for teachers based upon experience, seniority and certification before June 30.

5. Teachers that may need certification in other areas to retain jobs within the foreseeable future are notified to seek additional certification.

6. Transportation routes are developed before June 30 based upon the assignments of pupils and teachers for each building.

7. Furloughed teachers are notified after the regular school board meeting in June.

8. Tentative teaching assignments are distributed to the professional staff before June 30.

9. Bus contracts are negotiated before July 15.

Background: This practice was implemented to provide:

1. Uniform class size in grades or subject areas.

2. An orderly reduction in force and employment of additional teachers.

3. Maximum utilization of buses.

4. Minimum number of furloughs.

Effectiveness: 1) Better teacher morale; 2) Reduced instructional and transportation costs; and 3) More favorable pupil-teacher ratio.

Cost Requirements: Each building principal devotes approximately five (5) days to complete the task.

Title: REVIEW OF STAFF NEEDS

Practice Description: Since we have experienced only a modest enrollment decline, we use the vacancies that arise through resignations and long term leaves of absence as an opportunity to review our enrollments in secondary courses and elementary classrooms, as well as our program needs. In this review, which has replaced our former practice of automatically filling vacancies as they arise, we ask the following questions:

1. What are current class sizes in other classes comparable to the one vacated?

2. What options are available for combining classes and thereby eliminating the position vacated, or filling it from within?

3. What direction might our long range plan, citizens' advisory council, or curriculum committees have given regarding the need to fill this vacancy?

4. Do other staff members have certification in more than one area and would they be able to cover this assignment? How do workloads compare in the area vacated?

5. Can the position be filled part-time rather than full-time?

The options and programmatic and fiscal consequences of each option are reviewed with the school board to help them make a decision on filling the vacancy.

Background: Fiscal constraints necessitated by greater reliance on property taxes as a source of revenue, together with inflationary increases in expenses and a continuing value placed on thrift, prompted the adoption of this practice.

Effectiveness: Since 1981 we have made instructional staff reductions and adjustments among teaching positions, department heads and principals amounting to approximately $78,000 which represents an adjustment in staffing of approximately 2% compared to our enrollment decline of 3.5% during the same two year period. It should be noted that this pratice has also enabled us to reassess staffing in other areas with increases in staffing where educationally beneficial.

Cost Requirements: Since the data related to the options to filling a position are gathered, organized, and interpreted by administration for the board, there is no cost. The time involved varies with the position vacated. If a regular position is not filled, the payback continues each year.

Adaptability: This practice is adaptable for any district, whether enrollments are declining or not. It is also adaptable for non-instructional staff and for replacement and new equipment purchases.

Contact: Paul A. Johnson
Superintendent
Spring Grove Area School District
220 West Jackson Street
Spring Grove, PA 17362
(717) 225-4731

Title: REALIGNMENT OF STAFF

Practice Description: A thorough check of the entire teaching and non-teaching staff is made at the end of each school year and, also, prior to the beginning of the second semester to determine what realignment of the teaching and non-teaching personnel can be made without jeopardizing or interrupting the educational process for our students. All approved requests for sabbatical leaves, maternity leaves and unpaid leaves of absence were studied carefully to determine how students' schedules could be accommodated without replacing the teacher on leave. (Personnel leaving the district because of retirement and/or resignation were not replaced.)

Background: Because our district is in financial difficulties at this time, it was necessary that this practice be developed and strictly adhered to in order to reduce the cost of personnel salaries and fringe benefits.

Effectiveness: This program for the 1982-83 school year effectively reduced the teaching staff by six (6) teachers (teachers on leave and not replaced), one (1) school nurse (her duties assigned to the other district nurse), one (1) Principal (replaced by an Assistant Principal), one (1) payroll clerk (clerk retired, his duties absorbed by the business manager and board secretary), one (1) part-time clerk furloughed (position will be phased out--duties absorbed by other clerks. One (1) teacher resigned and was not replaced. Savings for this year--approximately $88,500. Next year, savings might not be as high, but there will be savings without curtailing the educational process.

Cost Requirements: There were no costs to the district to put this practice in effect.

Adaptability: This procedure could help any district achieve savings. Administrative staff members can readily provide the information necessary for student scheduling and teacher realignment.

Contact: Robert E. Capone
Superintendent
City of Duquesne School District
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Duquesne, PA 15110
(412) 466-5300

Title: MULTIPLE CERTIFICATION HIRING

Practice Description: This staffing practice requires that all professional employee vacancies be analyzed to determine what multiple certification combinations might be applicable to existing and projected staffing needs. The primary focus is as follows:

1. Survey course schedules for potential split assignments (current) and future projections - needs.

2. Establish a priority listing of multiple certification priorities sought from potential candidates.

3. Advertise and solicit for candidates based on priorities.

Background: The practice of hiring professional employees with multiple certification (or persons willing to gain an additional area within one year), grew out of scheduling demands where small enrollments might have caused courses to be dropped, particularly when part-time help was not available to deal with one or two classes of a particular course. In addition, this practice has enabled the district to avoid R.I.F.s because staff flexibility made intra-district reassignments relatively easy during a period of declining enrollment.

Effectiveness: Flexibility in course staffing and the maintenance of full-time persons working split assignments are benefits which relate to enhancing staff morale. In addition, course offerings have not suffered from small enrollments.

Cost Requirements: There are no costs other than recruiting time. The "payback" is realized in scheduling of staff and what course offerings can be maintained.

Adaptability: The practice has no adaptability problem so long as contractual language does not limit management efforts to utilize this approach. Employee interviews and written professional employee contracts that acknowledge the "intent" are very important.

Contact: Louis V. Brueggemann
Superintendent
Wilmington Area School District
400 Wood Street
New Wilmington, PA 16142
(412) 946-2720

FINANCE/BUSINESS PRACTICES

Title: QUARTERLY BID CYCLE

Practice Description: Bidding for the procurement of supplies and equipment as well as major contracts is programming for four major bid cycles throughout the year thereby spreading the work load of all persons involved with procurement. Presently, the bid cycles are established with bid due dates of November, February, April and June.

Background: All supplies and equipment were bid in spring for delivery during the summer for the next school year thereby placing an undue burden on business office personnel for bidding and warehouse/building personnel for receiving, checking and distribution. In addition, vendors could not service all districts bidding in the spring so they had to pick and choose the districts for which they would bid.

Effectiveness: Minimizes the peaks and valleys of the work load for business office and warehouse personnel. Market timing can be taken into account in the preparation of the bidding schedule.

Cost Requirements: May require payment of more than one year's supplies in some areas in one year in order to schedule to cycle bidding; however, an increase in inventory balances same.

Adaptability: Readily adaptable to any district interested in such scheduling.

Contact: Arthur C. Kretz
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Penn-Delco School District
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215-494-1104, Ext. 16

Superintendent: Dr. John M. Cipollini

Title: STATUS QUO BUDGET

Practice Description: A status quo budget from middle-management is an attempt to hold-the-line on inflation and excessive demands. Primary considerations are as follows:

1. Only essentials are to be budgeted on the basis of screening all individual staff demands.

2. Individual staff interviews to discuss essentials and establish priority items and alternative choices.

3. Priority and/or alternative chosen budgeting items must be able to accomplish the same objective or offer equal benefit at comparable cost to the district.

4. Budget requests screened by Business Manager and final adjustments made by the Superintendent in conference with individual principals.

5. Submission of budget requests to the Board of Education as a "Committee of the Whole" to give preliminary approval or rejection.

6. Superintendent and principals make final adjustments and a tentative budget is prepared for consideration by the board.

7. On the basis of long-range objectives for improvement, the Board commits additional funds for meritorious projects.

Background: This procedure was utilized to enhance organizational accountability and make our fiscal responsibility evident to the Board of Education and taxpayers.

Effectiveness: A leveling off is expected; however, this program effectively reduced the millage from 35 mills to 20 mills the first year, and subsequently from 20 to 10, then from 10 to zero (0) within three years. Obviously, this program consisted of the following components utilized simultaneously: (a) preventative maintenance on a progressive basis; (b) specific school improvement programs with funding committed over three years in specific annual amounts; (c) open communication with professional and classified personnel financial status.

Cost Requirements: Three years of costs totaled $25,000 to fund specifically needed projects by mutual agreement between management and faculty and staff. Payback was the first year's status quo budget.

Adaptability: Any school district can utilize this practice, provided that management is committed to fiscal planning and the Board of Education will provide funds in specific amount and time frame to implement said planning.

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Bristol, PA 19007
215-781-1010

Title: DECENTRALIZED BUDGET PROCESS

Practice Description: The process starts with the requisitions for general and art supplies wherein all employees determine what supplies will be needed for the following school year. These are summarized by each building and forwarded to the central office for bidding purposes. The instructional materials are requisitioned by each individual teacher - in the elementary schools, the Principal is the next individual that reviews the requests and what they feel is necessary is then summarized to be reviewed by the Superintendent and Business Manager before money is actually included in the budget; the high school has one additional step where the requisitions are presented to the Department Head or Section Leader before review by the Principal, Superintendent and Business Manager.

Background: Many people were unaware what was being ordered as well as the cost of items. They sort of had the feeling that the money would never run out and if they forgot to order an item, someone else was responsible and should be able to come up with sufficient funds for same. It makes each individual more responsible.

Effectiveness: Each Building Principal became responsible for the funds that are expended for their building budgets for items such as: supplies, textbooks, field trips, etc. They also became more aware of cost figures as well as the importance to be accurate and complete at requisition time.

Cost Requirements: Unable to determine -- It took time the first year to determine the procedure, etc.; but once that is determined, it is a matter of updating and you are ready to go.

Adaptability: Very easily -- once the format has been determined with timelines and directions it is a matter of adhering to the schedule.

Contact: Helen D. Rex
Business Manager
Upper Adams School District
North Main Street
Biglerville, PA 17307
717-677-7191, Ext. 38

Superintendent: Dr. Robert G. Witten

Title: CONTRACTING FOR ADMINISTRATIVE SERVICES

Practice Description: A consortium of twelve districts obtains administrative services for the operation of the ECIA Chapter I and Chapter II programs. Through a coordinator employed by the Intermediate Unit, the planning and development of projects, bidding and purchasing materials, employment of project personnel, and all budgeting and accounting are accomplished with and for the districts.

Background: This practice was adopted at the request of small districts who lacked sufficient administrative staff to deal with the detailed federal requirements.

Effectiveness: School districts receive two main benefits from this program.

1. They share the cost of a project administrator with all other consortium districts.

2. The duplication of administrative effort is eliminated.

Cost Requirements: The costs for initiating this program included office facilities (office space, desk, files, etc.) of approximately $1,000. Operational costs are shared by the districts as required.

Adaptability: This practice is readily adaptable in any Intermediate Unit.

Contact: Mr. Dan Wetzel
Chapter I Program Coordinator
Seneca Highlands Intermediate Unit 9
119 Mechanic Street
Smethport, PA 16749
(814) 887-5512, Ext. 47

Executive Director: Dr. Frank A. Rackish

Title: INSURANCE CAREER AWARENESS

Practice Description: This program offers our students an opportunity to apply their newly learned skills to the job market upon graduation. It is a cooperative effort between the Salisbury Township School District and the insurance industry of Lehigh Valley. The main ingredients are:

1. Need established special course in insurance.

2. Insurance industry indicates in supporting school systems that adopt "Project Invest" as a course.

3. Students are informed of new course, time required, and interest needed.

4. Plans are made to implement the course for the following year.

5. Insurance industry supports with equipment and personnel as well as having a committee for additional guidance and support.

Background: The insurance industry of Lehigh Valley indicated a need for students to receive skills in high school which will enable them to be more proficient in certain skill areas. This became a joint effort between the school district and the insurance industry, economically and personnel.

Effectiveness: This program enabled our high school to offer a course in which we could actually simulate an insurance office. This was possible because of the financial support given by the insurance industry. Continued financial support for updating equipment will be reviewed by the committee.

Cost Requirements: Operational costs for the program included substitutes and books at a district expense (approximately $940.00) and dividers, copier, and phone system (approximately $5,500.00), supplied by the insurance industry.

Adaptability: Any school district that sees the need for "Project Invest" type course should approach their local insurance agencies seeking their support.

Contact: Clarence J. Jones
Curriculum Coordinator
Salisbury Township School District
1140 Salisbury Road
Allentown, PA 18103
(215) 791-0146

Superintendent: Dr. F. Laird Evans

Title: MEDICAL INSURANCE SURVEY

Practice Description: This program offers a simple system to identify and reconcile discrepancies between the amount of medical insurance that is appropriate for each employe and the amount the employe actually has. The main elements are as follows:

1. An initial survey of district employes to obtain current information regarding age, marital status and ages of dependents.

2. Determination of appropriate coverage for each employe based on current employe data, insurance carrier guidelines, and district policy.

3. A comparison between appropriate coverage and actual coverage for each employe.

4. Reconcilation of differences between appropriate and actual coverage by consulting with each affected employe and with the employe's consent, notifiying the insurance carrier of any necessary adjustments.

5. Routine continuation of the procedure during each reenrollment period. In addition to saving money the practice is a means of protecting the employe and the district. When an employe is found to be under insured the employe benefits from having coverage adjusted and the district avoids possible liability.

Background: This program was developed to reduce the annual cost of employes medical insurance for school districts. Research has shown that employes generally failed to keep the district informed of changes in their personal lives that might affect insurance coverage and that this failure often resulted in over payments to insurance carriers. For example, paying premiums on dependent children who have reached an age no longer recognized by the carrier's contract wastes money and is of no benefit to the employe because claims made on behalf of ineligible persons will not be honored.

Effectiveness: The program effectively reduced medical insurance costs in the initial year. Total net cost savings, in the form of reduced medical insurance premiums, were reported as $57,667, for an average savings of $15.74 per employe. Long-term savings are expected but will be less dramatic from year to year as records are kept current.

Cost Requirements: Operational costs for the district for one year amounted to $1,058 which covered staff time and the survey form.

Adaptability: This systematic procedure could help any district achieve maximum savings on medical insurance for its employes, and the program's simplicity make it particularly adaptable. Necessary training of staff can be provided by insurance representatives and the appropriate school administrator.

Contact: Dr. Ted Rabold
Substitute Superintendent
Tuscarora School District
118 East Seminary Street
Mercersburg, PA 17236
717-328-3127

Title: INVESTMENT POLICY AND PROCEDURES

Practice Description: The policy provides guidelines and direction to the administrative staff for approved procedures for investment of school district funds.

1. Establishes objectives; i.e. seeking competitive rates both locally and regionally, negotiation of agreements with local financial institutions for all banking services.

2. Defines all authorized investments including C.D.'s, U.S. Treasuries, interest bearing accounts, and secured overnight investments.

3. Outlines the investment decision:

   a. Obtaining and recording competitive quotes.
   b. Evaluating quotes on basis of interest offered and any fees or service charges.
   c. Determining optimum for period of investment taking ascending or descending scale of rates and considering current market conditions, trends and forecasts.
   d. Combining funds when possible.
   e. Considering need for liquidity.
   f. Evaluating the return available from concentration accounts or other investment accounts.

Background: A need for definitive investment guidelines and procedures was recognized by the administrative staff; which would ensure that the board's intent to maintain a positive local economic impact through the placement of school district funds in local financial institutions is balanced with the need to insert the element of competition.

Effectiveness: Many of the benefits derived from the approval and implementation of the program can not be fully measured, however an analysis of the school's major funds show substantial reduction of under-invested bank balances. An important benefit of the implementation of a structured investment procedural program is that the district's earnings would not suffer due to a change in personnel involved in cash management. A summary of past investment earnings is listed as follows:

1979-80 (before implementation) $148,868
1980-81 (1st year of implementation) $220,469
1981-82 (2nd year of implementation) $335,277

Cost Requirements: The cost of implementation of such a program is merely the time spent determining the district's needs and goals and setting procedures which match the district's business office structure. Payback would be immediate considering the present economic climate.

Adaptability: A policy for establishing cash management guidelines should be tailor made to fit the structure of the business office, views of the school board, and relationships with the local banking and financial institutions.

Contact: Gregory A. Ewing
Busines Administrator
Delaware Valley School District
Star Route #1, Box 179A
Milford, PA 18337
717-296-6431

Superintendent: Dr. Gerald E. Strock

Title: SELF-FUNDED HOSPITALIZATION PROGRAM

Practice Description: A self-funded hospitalization program for employes is a mechanism to provide employes with quality health care benefits while enabling employers to retain some control over costs and fees. A multi-employer fund, wherein employes in a relatively homogeneous area join forces and funds, allows stability due to the group's increase size. Self-funding is a first step in the effort to control health care costs in that it makes for better control over administrative costs, reserve uses and the retention of surplus funds for investment purposes.

Background: Continued unjustifiable, and to an extent, unexplainable increases in conventional group medical insurance led the CSIU and one of its districts to form a regional self-funded trust in 1977. As of November 1982, some school agencies were providing medical benefits to their employes (as well as dental and vision care) through the trust.

By putting budgets on administrations, retaining funds and earning interest until they are used for claims, and securing stop-loss insurance to protect the fund from catastrophic losses, it was felt (and has been proven) that quality benefits could be provided at a cost savings over conventional insurance.

Effectiveness: A tremendous cost savings (some $200,000 initially) and continuous rate management (rates have increased on an average at about 11% yearly, some 50% below market increases. Better control over administration, and control of funds have been benefits to our plan. There are many more which could be identified to interested parties upon request.

Cost Requirements: Some central staff must provide some coordination and support, but most costs are provided by the trust administrator.

Adaptability: Several intermediate units, groups or school districts, and individual districts have trusts in operation, which attests to their viability.

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Central Susquehanna Intermediate Unit
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717-523-1155 Ext. 236

Executive Director: Dr. Patrick F. Toole

Title: WORKER'S COMPENSATION CONSORTIUM

Practice Description: The Worker's Compensation Insurance Plan was organized by the East Central Pennsylvania Consortium in order to save insurance premium dollars for member school districts. The plan was implemented with 15 initial districts on July 1, 1981. At the end of the first year of operation these 15 districts realized a dividend of approximately 60%.

The initial 15 districts got together and in actuality formed their own mini-self insured Worker's Compensation Insurance Plan. The group is actually insured through an insurance company and meets the requirements of the Commonwealth however, the plan is administered by the Alexander & Alexander Incorporated Insurance Brokerage Firm, and they actually handle the claim.

The first year only 15 districts were involved and this has now grown to 41 districts. There has been additional interest.

Background: The idea for self-insurance has become more prevalent among school districts in the Commonwealth. The initial ground work done by the Lebanon-Lancaster Intermediate Unit and the scope broadened to include other school districts mainly in the central part of the state. The main purpose of trying this approach to insuring for worker's compensation was the high premiums that districts were paying while having low claim experience.

Effectiveness: All districts participating realized a dividend of approximately 60%. This compares with an average dividend of approximately 20% from the normal conventional insurance company worker's compensation insurance. In the State College Area School District this meant a savings of about $25,000.

Cost Requirements: Very little additional costs were required other than costs for attendance at meetings for members of the steering committee. The payback period was less than six months. There was an immediate savings.

Adaptability: This practice should be a savings to any district that can qualify for admittance into the East Central Pennsylvania Insurance Consortium.

Contact: Ralph W. Moyer
Business Administrator
State College Area School District
131 W. Nittany Avenue
State College, PA 16801
814-231-1021

Superintendent: Dr. William F. Babcock

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Title: TAX OFFICE COMPUTER

Practice Description: For 1982-83 we have a computer terminal and remote printer located in one of our tax collector's offices (the largest of six tax offices). Using modems and a leased telephone line the personnel in the tax office are able to record payments, exonerations and reductions for real estate and occupation assessment taxes on the terminal. They may also inquire on the status of any of the taxpayers, or print a listing of collections or delinquents. They may print labels for any or all names and addresses of taxpayers. In 1983 we intend to have earned income tax, per capita tax, and occupation privilege tax collections on-line. Two or three of our other tax offices have expressed an interest in using our system - perhaps in 1983-84.

Background: For years we have not been completely satisfied with our tax collectors' frequency in turning over tax revenues to us. The collectors always said there was a lot of clerical time involved in manually posting and keeping track of tax payments, etc., especially at the end of the discount and face periods. We approached our largest tax office with the idea of using a computer terminal tied into our Burroughs B1955 computer as a pilot program to see if efficiency in the tax office could be improved. The tax office agreed, and efficiency has increased dramatically.

Effectiveness: For 1982-83 we have our largest tax collection office on-line as a pilot. In September 1982, we earned more than $4,000.00 extra on investments as a direct result of using the terminal in that office. In addition, clerical time has been saved, which has been applied to other work in the tax office.

Cost Requirements: The system is not yet completed, however, the real estate and occupation assessment, and per capita tax portions are completed. To date, a total of $7,840.00 has been spent on programming. Depending on the number of collectors involved, a 2 or 3 year payback should be possible.

Adaptability: Depending on the other district's computer facilities, the idea and formats could be readily adapted, however, the programming could present problems depending on the language used.

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Accounting Supervisor
State College Area School District
131 West Nittany Avenue
State College, PA 16801
814-231-1055

Superintendent: Dr. William E. Babcock

Title: EARNED INCOME TAX

Practice Description: Utilize a "Lock Box" number for taxpayers to use in mailing taxes in to the earned income tax collector. Bank deposits directly to school and municipalities accounts.

Background: The tax money used to go to the tax collector, verified, posted, etc., and then distributed. This caused a delay in several days before the money was available for investment.

Effectiveness: Bank receives money directly and deposits to school and municipalities. Paper work is forwarded to earned income tax collector. Dollars are invested immediately instead of waiting several weeks for the tax collector to process the reports.

Cost Requirements: Cost of the lock box which was used before. Only additional cost was the bank's minimal service charges.

Adaptability: Could only be used profitably with school district's own home based banking facility.

Contact: Robert F. Northrup
Director of Finances
Souderton Area School District
139 Harleysville Pike
Souderton, PA 18964
215-723-6061, Ext. 210

Superintendent: Dr. William E. Maxwell

Title: DIRECT TAX COLLECTION

Practice Description: The district business office is billing and collecting the school real estate tax thereby improving the efficiency of the tax collection system as well as the cash flow and investment program. Although this item is in litigation at this time, the district is optimistic that the courts will uphold the position the district has taken.

Background: Three elected municipal tax collectors were responsible for collecting the school real estate taxes. Constant turnover of tax collectors in at least two of the municipalities resulted in tax collectors leaving office shortly after learning the job thereby resulting in an inefficient and cumbersome system.

Effectiveness: The district is knowledgeable in all phases of school tax collections. Tax monies are received and accounted for in a more timely manner. Cash flow and investment opportunities are improved.

Cost Requirements: No additional cost requirements although a revision of priorities may be necessary for the business office.

Adaptability: Readily adaptable by any district able to effect this change.

Contact: Arthur C. Kretz
Assistant Superintendent-Finance
Penn-Delco School District
95 Concord Road
Aston, PA 19014
215-494-1104, Ext. 16

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Superintendent: Dr. John M. Cipollini

Title: TAX COLLECTORS PAID ON PER ITEM BASIS

Practice Description: The elected tax collectors, who collect real estate taxes and per capita taxes, are now compensated at the rate of two dollars and fifty cents ($2.50) per item for the tax on each parcel of real estate and at the rate of two dollars and fifty cents ($2.50) per item for the per capita tax levied on each eligible resident of the district.

Background: The elected tax collectors had been paid a commission at the rate of four percent (4%) of the amount of tax collected. The local real estate taxes, necessary to support the schools had increased from two to three times the amount when the commissions were originally established. The expenses, for the collection of taxes, were increasing excessively. The amount of bookkeeping time, for the tax collector, is the same for a tax of ten dollars as it is for a tax of $10,000.00. It was concluded that an item compensation rate was more economical for the district.

Effectiveness: The costs of the collection of taxes were reduced significantly.

Cost Requirements: No costs other than the advertisement in the legal section of the local papers informing the candidates for election to the position of tax collector of the change in the method of compensation. The payback period is immediate.

Adaptability: Any school district, which now pays a commission for the collection of real estate taxes, can change to a per item rate prior to the next election of the local tax collectors.

Contact: Rodney Fink
Business Manager
Clarion-Limestone Area School District
R.D. #1
Strattanville, PA 16258
814-764-5111, Ext. 23

Superintendent: Dr. Robert J. Kerr

Title: CASH FLOW PROGRAM

Practice Description: School district maintains duplicate, prepares and mails tax bills.

Taxpayers must pay to bank by lock box or teller's window at any branch.

Bank gives immediate credit to district's NOW account and daily remits paid tax bill to district.

Elected tax collectors only sign lien lists.

Tax Collector bonds are set at minimum as bank is insured.

Background: Tax collection using an elected collector probably has not changed in 50 years - except possibly preparation of tax bills.

There is a lag between the time a tax collector receives payments, remits to the school district and the district has use of the funds. This is very significant at the end of the discount and net periods; consequently, significant interest earnings are lost.

Using an elected tax collector in entirety is too expensive.

Effectiveness: Reduces cost, faster availability and increased Interest Income.

Cost Requirements: None

Adaptability: It is usable in all school districts. However, political realities must be recognized in districts that are very political.

Contact: D. R. Howland
Director of Business Affairs
West Chester Area School District
320 North Church Street
West Chester, PA 19380
215-436-7110

Superintendent: Dr. Donald E. Langlois

Title: INVESTMENT MANAGEMENT

Practice Description: This program enables a school district to obtain maximum earnings for all tax revenues without incurring additional expenses for tax anticipated loans, etc. The objective is to have tax collectors place collections in district accounts within a minimum time period. Practice works on the following board adopted policy:

Procedure for Deposits

The school district will provide a five-part deposit slip with the Tri-Valley General Fund Account Number and the name of the tax collector's particular township on the slip for indentification purposes.

The five-part slip is distributed as follows:

1. The collector will remove and retain the bottom copy on completion of the slip.
2. The bank will forward a validated copy to the tax collector and to the district central office.
3. The bank will retain two copies.
4. Each collector will obtain a key for the night deposit bank for the American Bank or one of its branches.

Deposit Requirements by Tax Period

Discount Period - Daily or when collected amount reaches $500; whichever occurs first.

Face Period - At least once weekly or when the amount collected reaches $500; whichever occurs first.

Penalty Period - Same as Face Period.

Background: This practice and policy was developed to eliminate the holding of district revenues in non-bearing interest accounts of specific tax collectors. The absence of policy and procedures was allowing tax collectors to amass large sums of money. Since this was district money, our objective was to secure it for temporary investments. The above policy was formulated and developed as per the implied intent of Section 507 of the Penna. School Code.

Effectiveness: This program effectively generated new sources of revenue for our district. The first year of implication $23,000 in additional interest revenue was earned. That is substantial for a three million dollar budget.

Cost Requirements: None - American Bank, our depository - paid for the printing of the new five-part deposit slips.

Adaptability: This procedure is readily adaptable to any school district desiring greater revenue through proper utilization of its resources.

Contact: Richard J. Spotts
Superintendent
Tri-Valley School District
1801 W. Main Street
Valley [illegible], PA 17983
717-682-9011

Title: CASH FLOW PROGRAM

Practice Description: This cash flow program enables Centennial School District to take advantage of "float" on its outstanding checks by investing the balance of all accounts into one concentration account at the end of each business day. As a result, all accounts have a zero balance at the end of the day with the concentration account holding all funds, allowing investments with higher yields due to larger principal balances. As checks are presented for payment on the payroll account, general fund, etc., monies are transferred automatically by the bank to the account where payment is needed.

Background: This program was inserted because at the end of a given day there could be checking accounts with balances in them representing monies deposited to cover checks which have not been presented for payment. These balances would stay for as long as the checks are outstanding and consequently not earning interest. Under the Z.B.A. program, monies would not be transferred to the checking accounts until the check is presented. All funds being "lumped" together from all various fund accounts into a concentration account enables larger investments.

Effectiveness: Increased control over cash flows and increase in interest earned on investment. Also, payroll checks are placed in numerical order and settled by an automatic reconcilation plan, easing bank reconciliations.

Cost Requirements: A minimum balance of $150,000 must be maintained in the concentration account which is not available for investment.

Adaptability: This practice could be used by any district with more than one fund account. The transition from the standard practice to a Z.B.A. can easily be made.

Contact: Joseph A. Albano
Business Administrator
Centennial School District
Centennial Road
Warminster, PA 18974
215-441-6101

Superintendent: Dr. Harry P. Quinn

Title: CASH FLOW PROGRAM

Practice Description: This program assures the district that every dollar on deposit is put to use--either to pay checks or earn interest income. There will be no idle bank balances. The following steps are necessary:

1. Establish a concentration account with the bank to receive all district deposits. Checks are not charged against this account.

2. Checks are drawn against the working accounts such as payroll, General Fund, etc., which will continue to handle all business transactions. Checks drawn against these accounts are not funded directly by district deposits and as a result the accounts become overdrawn.

3. Each day the bank automatically covers the overdraft amount by transferring collected balances from the concentration account returning the overdrawn accounts to zero balances. Excess funds in concentration account are transferred to an investment account to produce interest earnings. If concentration account does not have enough money to notify the overdrawn accounts to zero balance, funds are transferred from the investment account.

4. Have bank provide for the purchase from their government portfolio, repos on an overnight or longer basis.

5. Daily bank must call district advising district of its cash position and receive authorization to make the necessary transfers for investments.

6. Daily bank must submit written confirmation of all transfers.

Background: Upon review of the outstanding checks uncashed in the Payroll Fund I began to realize that their idle funds should be put to work. The thought occurred to me that even if a check was written it would at least be one day's time before it would be cashed and from that thinking I studied the idle funds or float and decided this money would be constantly invested in securities that would yield a larger return than just a NOW account.

Effectiveness: The program enabled the district to earn an additional $77,820 over and above its usual earnings of $44,140 from the NOW account approach, including the payment of costs amounting to $3,984.

Cost Requirements: The annual cost to the district for this practice has been established at $3,756 for a one year period.

Adaptability: This practice is one which any district should be able to apply. It is a matter of accountability in making sure that every dollar is put to use rather than remain idle. No real training is necessary in order to maintain a cash flow management operation.

Contact: Herbert E. Fry
Business Manager
Reading School District
Eighth and Washington Streets
Reading, PA 19601
215-371-5665

Superintendent: Dr. Richard H. Cahn

Title: CASH FLOW PROGRAM

Practice Description: This system is designed to decrease the time in which real estate tax receipts are held in individual tax collectors bank accounts until remittance to the school district.

1. Input from bank officials, tax collectors, and business office staff was assimilated and an agreement was reached that all but a minimum balance ($1,000 to $2,000 varying on size of duplicate) would be transfered from each individual tax collector's account to a savings account, established in the school district's name, on a daily basis by a designated bank employe (Cashier).
2. A summary of the transfers made for that day are reported to the business office at the end of that day's banking business. Cash balances in a school district's account is reported to the Business Administrator daily.
3. Monies are invested directly out of the established tax savings account (in accordance with investment schedule) or transferred to the district's general fund for investment in a high yield liquid money fund trust, until sufficient balance for investment in Certificates of Deposit is accumulated.
4. Monthly reports to the school board on tax collection receipts are checked against the tax collectors receipt forms to verify accuracy.

Background: The tax collection audit report prepared by the local auditing firm for the period ending June 30, 1980 revealed that a few tax collectors were remitting tax receipts to the district in a less than timely basis (some tax monies were not turned in for two to three weeks after receipt by tax collector). The school board of directors had adopted a money management policy committed to maximizing earnings on the receipt of public funds received by the school district, and in accordance with their goals the board directed the Board Secretary and Business Administrator to develop a system which might facilitate a speedy cash flow for investment purposes.

Effectiveness: Although it would be very difficult to ascertain the benefit derived directly from this transfer system I offer the following data:

Earnings on Investments		Earnings on Tax Savings Accounts	
1979-80 (before implementation)	$148,868	1979-80	-0-
1980-81 (1st year of implementation)	$220,469	1980-81	$1,547
1981-82 (2nd year of implementation)	$335,277	1981-82	$3,028

Cost Requirements: The costs associated with the implementation and maintenance of this system are minimal. The bank's staff handles the transfer of monies to the district account and therefore is responsible for maintaining an accurate record for both the tax collector and the school district. A minimum balance of $5,000 is maintained in the district's tax account to offset the bank's expenses incurred in operating the program, and to ensure coverage of any bad checks already credited on the district's account. Since the $5,000 is earning 5.25% the money is under-invested by the difference .0525 and the rate the money would earn in a high yield investment vehicle. Given some basis assumptions let's say the money is under-invested by 6%, loss to the district due to under-investment is approximately $120.

Adaptability: The actual transfer system is very basic and virtually any banking institution is capable of handling the transfers. If the bank is not computerized than modifications would need to be taken into consideration. The business office requirement would be the availability of a staff member to call the bank on a daily basis to obtain the transfer information.

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Delaware Valley School District
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Milford, PA 18337
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Superintendent: Dr. Gerald E. Strock

CURRICULUM/INSTRUCTION PRACTICES

Title: CONTRACTING ON-THE-ROAD PORTION OF DRIVER TRAINING

Practice Description: Private Drivers Training Schools are requested to bid for providing supplemental on-the-road drivers training.

The existing professional drivers training staff member provides on-the-road instruction after meeting classroom requirements and within the standard workday (usually one student per day).

The private school handles all other students during school day, after school hours, and on weekends.

Instructors for private school must have appropriate state certification.

Private school is reimbursed for students completed, and hours of instruction if student discontinues.

Background: Backlog of students waiting for on-the-road was excessive. Frequently, permits had to be renewed because instruction was not given before expiration of permit.

Cost per student completing on-the-road was excessive.

Teachers providing on-the-road had withheld after-hours services because of dissatisfaction with rate of pay. (Rate had been negotiated and contract period had not expired.) This caused even larger backlog and intense public reaction.

Effectiveness: Virtually no student backlog for on-the-road instruction. Lower cost per pupil. Quality of road instruction maintained.

Cost Requirements: There was no implementation cost. First-year savings in 1972-73 were $38,000 and would be significantly greater today.

Adaptability: Should be practical for all but possibly very remote districts. Some local districts only hire part-time classroom instructor now and use contractor totally for on-the-road.

Contact: D. R. Howland
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West Chester Area School District
320 North Church Street
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215-436-7000

Superintendent: Dr. Donald E. Langlois

Title: DEVELOPING PROGRAMS VIA CONSORTIUMS

Practice Description: The procedure of school districts forming consortiums in order to develop programs for students which would be financially prohibitive for the district to do alone has become standard procedure in Delaware County over the past six years.

Regions banned together in groups of four to six with meetings each month on the superintendents' level and additional monthly meetings on the directors' level.

An agenda is established which deals with the establishment of various programs and procedures which can be implemented through the combined efforts of the consortium.

Background: This cooperative group procedure was established to aid in the reduction of educational costs when districts work alone to begin and/or maintain programs in regular or special education.

Districts were attempting to create programs for small groups of students which became extremely expensive when these districts tried to service these students with limited resources. Consequently, the concept of the consortium was created to include more students and to expand the resources available to these students through the combination of several districts working together.

Effectiveness: This procedure of dividing the county's 15 school districts into 4-6 working consortium groups has effectively reduced the costs for servicing handicapped, gifted and regular students in various programs.

The intermediate unit assists these consortium groups to ensure the quality of programming as well as their role in coordinating services to students which do not duplicate the consortium or individual district programs.

Cost Requirements: Operational costs for the consortium programs are paid for by all districts involved in the services. This cost varies depending upon the programs being offered and the personnel and equipment needed to implement same. However, the cost is always reduced when there is an increase in student enrollment and a sharing of resources by the districts in the consortium.

Adaptability: This unique approach would help all districts achieve cost saving approaches to servicing students in a variety of programs which may not be feasible from a one district standpoint.

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Folcroft, PA 19032
215-586-5300

Superintendent: Bruce B. Morgan

Title: MULTIDISCIPLINARY TEAM APPROACH FOR BEHAVIOR PROBLEMS

Practice Description: This procedure offers a system comprising the psychologist, guidance counselor and the referring teacher(s) who meet together to discuss problems concerning the student being referred for evaluation. The main elements are as follows:

1. A classroom teacher feels a student in the classroom is not learning and/or is having behavior problems.

2. The teacher refers this student to the guidance sub-committee for help. The guidance sub-committee is made up of the school psychologist and guidance counselor.

   a. Upon meeting with the teacher and observing in the classroom, the sub-committee, along with the classroom teacher, develop various intervention strategies in an attempt to aid the student in the regular classroom.

3. While this process is being implemented, auxiliary personnel such as the Diagnostic and Prescriptive teacher, the curriculum supervisors and the Home and School Visitor could be utilized to develop a complete profile on the student.

4. If the above process is found to be ineffective, the referral is submitted to the full guidance committee consisting of the building principal, nurse, assistant principal, plus the personnel in the initial sub-committee.

5. The full Guidance Committee then has input into the referral - verbal and written - before it becomes officially a referral for a psychological evaluation.

6. The referral is then sent to the Assistant Superintendent for Special Services for his perusal and authorization for implementation by the school psychologist.

Background: This multidisciplinary team procedure was developed in every school in the district to create a bona-fide continuum of alternatives when dealing with students who manifest learning and/or behavior problems.

Previously, any student who manifested learning and/or behavior problems in the classroom were referred to the building principal and from there to the school psychologist for testing and placement into special education. This process denied students proper intervention strategies while remaining in the regular classroom. It also mandated the role of school psychologist as primarily a psychomatrician with little or no contact with the classroom teacher and the students' educational program. This process took the school psychologist away from the emphasis upon prevention and into the realm of reaction from "crisis."

Effectiveness: This procedure has effectively reduced the number of inappropriate referrals for psychological evaluation and special education placement, and has provided a continuum of viable alternatives within regular education which teachers and students were previously unaware. Total cost per student savings, by appropriately educating the student in his/her regular classroom rather than special education, averages $500.00 to $700.00.

Cost Requirements: Operational costs for the district do not increase since the personnel involved in the Guidance Committee are part of the existing staff for various functions throughout the district.

Adaptability: This multidisciplinary team prevention process can be invaluable for any district in enhancing communication and cooperation between professionals; developing appropriate alternatives for all students in regular as well as special education; and in expanding the roles and responsibilities of team members in the areas of effective consultation and intervention.

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Superintendent: Bruce B. Morgan

Title: COMPENSATORY TIME FOR CURRICULUM DEVELOPMENT

Practice Description: In lieu of paying teachers for curriculum development work that extends beyond the school day, compensatory time and a program of State approved in-service credits is utilized. Teachers are permitted to use earned compensatory time as either early dismissal or late arrival throughout the school year. State approved in-service credits (up to 3) are awarded to teacher leaders completing an approved course which includes serving on the district's Curriculum and Instructional Council.

Background: The Hamburg Area School District has a very ambitious program of curriculum and instructional development. This program is based on participatory leadership and features extensive teacher involvement. The funds for paying teachers to do this kind of work are simply not there. However, it is unrealistic to expect teachers to participate without compensation. Granting compensation in the forms of release time and in-service credits seems to be a solution.

Effectiveness: After three years of operation, over 80% of district staff have earned compensatory time - many as much as 15-20 hours per year. Approximately 10 teachers per year have earned three State approved in-service credits. The cost savings to the district have been several thousand dollars. In addition, a more sincere commitment to the task is realized than would have been expected by paying people for the work.

Cost Requirements: Negligible program operation costs.

Adaptability: This program has merit in those districts that have not established a practice of paying teachers for extra-duty curriculum development work.

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Superintendent: James A. Gilmartin

Title: SPECIAL EDUCATION REORGANIZATION

Practice Description: This program provides a method of combining various special education organizational patterns to utilize teacher resources and to provide children with an appropriate education.

Background: A phenomenal growth in identified learning disabled children resulted in a need to add classes. As the identified students were assigned, it became obvious that numbers, locations or classes, skills of teachers and transportation requirements were not compatible. It was decided to form two classes which would utilize combinations of LD students. In the primary level class, full-time self-contained, resource room and itinerant students are served. At the intermediate grade level, full-time self-contained and itinerate students are provided a program. The ability to serve students with varying needs is achieved by careful programming, mainstreaming and judicious use of specialists in art, music and physical education.

Effectiveness: We have been able to serve students with varying needs who existed in relatively small numbers. This program modification saved the District the costs of additional special education teachers and more extensive busing.

Cost Requirements: No additional costs to the District were involved in the implementation of the program.

Adaptability: This practice could very easily be introduced in any school district. There are some negative aspects of the concepts. It can only work well if the schools have the capability to implement some very complex scheduling. The practice is also extremely dependent upon highly-skilled teachers working with a flexible administration and faculty.

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Superintendent: Dr. Richard Brothers, Acting

Title: DRIVER EDUCATION PROGRAM

Practice Description: The Driver Education Program consists of three phases, i.e., theory, driving simulation, and road training. The road training or actual time spent behind-the-wheel of an automobile, is three hours. Nine hours of class time is assigned to the simulation room. Using a time ratio of 3 to 1, this is equivalent to the remaining three hours of required road training.

Road training is administered by a commerical school. Each year bids are solicited and a contract awarded. The terms are carefully written and monitored by the district.

Background: Originally, our program consisted of theory, driving range practice, and road training. In order to operate this program, it was necessary to lease seven or eight vehicles and employ four or five teachers.

The district was advised by the leasing dealer in January, 1981 that leasing costs would increase sharply (from $40 to $250 for vehicle). Obviously, this additional cost would not be willingly borne by the taxpayers. There was some feeling in the community that driver education was a "frill" that should be discontinued.

A Federal Highway Grant was obtained and a nine-place simulation system was purchased at a cost to the district of approximately ten thousand dollars. With this system we are able to train all of the students who elect this course. The potential is over five hundred students during the regular school day and year.

Effectiveness: Formerly, driver education was a high cost, staff intensive program. Our staff has been reduced from a high of five to two members. Safety is stressed in the theory and simulation classrooms as the curriculum has changed very little. The savings realized by not employing two or three additional staff and by not leasing a number of automobiles is substantial.

Cost Requirements: The simulation system must be purchased. Since we were able to secure a Federal Highway Grant, our payback was realized the first year. We have an annual maintenance agreement for this equipment that is an additional expense.

Adaptability: This system is certainly adaptable to larger school systems. It may also be beneficial in smaller systems. Local conditions in smaller systems will dictate success.

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Title: FULL DAY KINDERGARTEN

Description: Kindergarten sessions are held on a full-day, every-other-day basis. Similar time schedules have been adopted by other school districts throughout the state and on a nationwide level with successful results in pupil achievement and parental satisfaction.

Background: This school district covers large geographic area with elementary neighborhood schools. Previous to this school year, regulations required half-day sessions. Although transportation was not mandatory, equal educational opportunity made mid-day transportation necessary. Cost of transportation was prohibitive and transportation time was excessive.

Effectiveness: The elimination of mid-day transportation resulted in an immediate reduction in transportation costs plus our anticipation of reduction in equipment repair costs as well as less equipment depreciation. Rest periods are built into the pupil schedule and the longer day provides greater opportunity for the scheduling of area teachers in art, music and physcial education. Parents, originally very suspicious of the every-other-day concept, now generally accept the full-day, every-other-day approach. Kindergarten pupils are scheduled for greater variety of activities. Emergency changes, caused by weather conditions have reduced effect.

Cost Requirements: The change required no additional transportation and savings were immediate.

Adaptability: Districts that cover large geographic areas should benefit by the reduction in transportation.

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Superintendent: Robert W. Davis

Title: FULL TIME KINDERGARTEN

Practice Description: This program is full time for all kindergarten students within the school district. The student day begins at 9:05 a.m. and ends at 3:30 p.m. with a 45 minute lunch period. The following represents a typical daily schedule for kindergarten students:

9:05- 9:10 - Opening exercises
9:10- 9:20 - Show and tell
9:20- 9:30 - Handwriting
9:30-10:30 - Reading groups, independent work
10:30-10:45 - Play time
10:45-11:35 - Social sciences and language arts
11:35-11:45 - Clean-up and preparation for lunch
11:45-12:30 - Lunch
12:30- 1:00 - Story time
1:00- 1:30 - Quiet time
1:30- 2:15 - Math
2:15- 2:45 - Play time
2:45- 3:15 - Health and Science
3:15- 3:25 - Clean up
3:25 - Dismissal

Background: This program was developed to accomplish the following:

1. To increase the amount of classroom time for each student.

2. To decrease the number of different students with which each kindergarten teacher must interact, and parents.

3. To reduce transportation runs within the school district.

4. To reduce the overall local costs of operating our kindergarten program.

All the research that was reviewed indicated that students of full-time kindergarten programs performed as well or better than students in half-day kindergarten programs. These students also have an easier transition to the first grade.

Effectiveness: Since we are in the first year of our program, it is too early to judge the program's educational benefits to students. Written communication received from parents to date has been very positive. Following is the financial information regarding projected savings to the Delaware Valley School District resulting from the implementation of a full day kindergarten program. The contractor's cost is based on a $1.00 per mile figure. The gasoline cost is based on five miles per gallon. The costs are as follows:

Contractors' cost for kindergarten runs for the 1981-82 school year	$43,920
Gasoline	8,937
Total	$52,857
Reimbursed cost from the State	4,392
Total cost to district	$48,465
Increase in basic instructional subsidy as calculated by our state auditor	$25,000

Using the above figures, we calculate a $48,465 savings in transportation, an increase in instructional subsidy of $25,000, resulting in a net increase in available revenue of $73,557. We anticipate a cost of $23,000 for the additional classroom teachers needed to implement the full-time kindergarten program. Estimated net savings - $50,465.

Cost Requirements: Equipping of two additional kindergarten classrooms with the necessary instructional materials. Estimated cost was $3,050.

Adaptability: It is felt that this program could save money for districts with similar circumstances. Each individual district should implement a cost benefit analysis for its particular district before implementing this program with the intent of realizing a cost savings. The Delaware Valley School District was able to reduce the additional personnel needed for kindergarten classroom teachers by transferring personnel from transitional first grade teaching positions to full-time kindergarten teachers, thereby eliminating the transitional program. Had the transitional program not been a part of our educational program, our savings would have been approximately $15,000 less than the projected savings listed above.

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Title: FULL-DAY ALTERNATE DAY KINDERGARTEN PROGRAM

Practice Description: The program offers an alternative to both the half-day, every day kindergarten program as well as the full-day, every day program. Instead of attending half-day sessions every day (as they did in the past), kindergarten students attend two full days per week and a full day every other Friday. One group of children attend a full day on Mondays and Wednesdays, the other group Tuesdays and Thursdays.

After receiving Department of Education approval, we conducted a pilot program at one of our three elementary schools this past year (March-June, 1982). We feel the educational value of the change is significant.

Daily expenses of $135.92 are realized due to the savings of bus runs (drivers salaries, mileage.)

Background: Although the primary reasons for initiating this program were definitely educational:

1. opportunity to reinforce concepts on an a.m.-p.m. continuum
2. greater flexibility in scheduling unit and project work
3. more structured learning time
4. more social involvement (cafeteria, library),

The spin-off cost savings became obvious. By saving bus runs, we saved money.

Effectiveness: The program effectively reduced transportation costs during the pilot months. The daily savings on drivers' salaries (plus retirement, social security, etc.) amounted to $65.42. The daily savings on mileage (141 miles x 50¢/mile) was $70.50. Projected daily savings amount to $135.92. The total projected savings for one semester (1/3/83-6/8/83) is $14,543.44.

Cost Requirements: No additional costs were required.

Adaptability: This program could help any district with:

1. The educational philosophy described above.
2. A fleet of buses covering extended mileage.
3. Considerable transporation costs.

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